



# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

Result of III B.Tech [R10,R07,R05] II Semester Regul/Supplementary Examinations May-2015

College: SRI SIVANI COLLEGE OF ENGG,CHILAKALAPALEM,SRIKAKULAM:W6

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 07W61A0429 | V3219   | VLSI DESIGN                                 | 12       | -1       | 0       |
| 07W61A0429 | V3220   | MICROWAVE ENGINEERING                       | 13       | 2        | 0       |
| 07W61A1217 | V3224   | COMPUTER NETWORKS                           | 14       | -1       | 0       |
| 08W61A0578 | V3224   | COMPUTER NETWORKS                           | 11       | 31       | 4       |
| 08W61A0589 | V3222   | OPERATING SYSTEMS                           | 11       | -1       | 0       |
| 08W61A0589 | V3223   | COMPILER DESIGN                             | 5        | 0        | 0       |
| 08W61A1210 | V3224   | COMPUTER NETWORKS                           | 11       | 34       | 4       |
| 08W61A1210 | V3243   | MIDDLEWARE TECHNOLOGIES                     | 0        | 4        | 0       |
| 08W61A1210 | V3244   | DATA WAREHOUSING AND DATA MINING            | 7        | 2        | 0       |
| 08W65A0205 | V3219   | VLSI DESIGN                                 | 9        | -1       | 0       |
| 09W61A0547 | V3223   | COMPILER DESIGN                             | 6        | -1       | 0       |
| 09W61A0547 | V3225   | INFORMATION SECURITY                        | 6        | -1       | 0       |
| 09W61A0547 | V3226   | ARTIFICIAL INTELLIGENCE AND NEURAL NETWORKS | 11       | -1       | 0       |
| 10GJ1A0417 | R32042  | MICROWAVE ENGINEERING                       | 4        | 29       | 0       |
| 10W61A0145 | R32011  | GEOTECHNICAL ENGINEERING - I                | 17       | -1       | 0       |
| 10W61A0145 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 15       | 14       | 0       |
| 10W61A0151 | R32011  | GEOTECHNICAL ENGINEERING - I                | 15       | -1       | 0       |
| 10W61A0151 | R32012  | WATER AND WASTEWATER ENGINEERING            | 11       | 19       | 0       |
| 10W61A0151 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 23       | 2        | 0       |
| 10W61A0151 | R32014  | WATER RESOURCES ENGINEERING-II              | 2        | -1       | 0       |
| 10W61A0151 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 19       | -1       | 0       |
| 10W61A0260 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 12       | 6        | 0       |
| 10W61A0332 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT               | 8        | 19       | 0       |
| 10W61A0433 | R32042  | MICROWAVE ENGINEERING                       | 13       | -1       | 0       |
| 10W61A0433 | R32043  | DIGITAL SIGNAL PROCESSING                   | 14       | -1       | 0       |
| 10W61A0433 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS       | 11       | -1       | 0       |
| 10W61A0433 | R32045  | VLSI DESIGN                                 | 9        | -1       | 0       |
| 10W61A0448 | R32043  | DIGITAL SIGNAL PROCESSING                   | 16       | -1       | 0       |
| 10W61A0448 | R32045  | VLSI DESIGN                                 | 14       | 0        | 0       |
| 10W61A0449 | R32041  | COMPUTER NETWORKS                           | 19       | 32       | 4       |
| 10W61A0461 | R32042  | MICROWAVE ENGINEERING                       | 14       | 12       | 0       |
| 10W61A0461 | R32045  | VLSI DESIGN                                 | 11       | 32       | 4       |
| 10W61A0465 | R32041  | COMPUTER NETWORKS                           | 16       | 6        | 0       |
| 10W61A0465 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS       | 7        | -1       | 0       |
| 10W61A0465 | R32045  | VLSI DESIGN                                 | 6        | 19       | 0       |
| 10W61A0467 | R32042  | MICROWAVE ENGINEERING                       | 2        | 13       | 0       |
| 10W61A0467 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS       | 15       | 10       | 0       |
| 10W61A0467 | R32045  | VLSI DESIGN                                 | 12       | 32       | 4       |
| 10W61A0482 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS       | 16       | -1       | 0       |
| 10W61A0482 | R32045  | VLSI DESIGN                                 | 9        | -1       | 0       |
| 10W61A0484 | R32045  | VLSI DESIGN                                 | 8        | 43       | 4       |
| 10W61A0563 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES          | 10       | 41       | 4       |
| 11W61A0103 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 21       | -1       | 0       |
| 11W61A0113 | R32011  | GEOTECHNICAL ENGINEERING - I                | 0        | 6        | 0       |
| 11W61A0113 | R32012  | WATER AND WASTEWATER ENGINEERING            | 2        | 20       | 0       |
| 11W61A0113 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 0        | 12       | 0       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 11W61A0113 | R32014  | WATER RESOURCES ENGINEERING-II              | 4        | 19       | 0       |
| 11W61A0113 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 6        | 35       | 4       |
| 11W61A0113 | R32016  | TRANSPORTATION ENGINEERING-II               | 3        | 27       | 0       |
| 11W61A0113 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 0        | 40       | 2       |
| 11W61A0113 | R32018  | TRANSPORTATION ENGINEERING LAB              | 13       | 40       | 2       |
| 11W61A0138 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 21       | 37       | 4       |
| 11W61A0142 | R32011  | GEOTECHNICAL ENGINEERING - I                | 7        | 7        | 0       |
| 11W61A0142 | R32012  | WATER AND WASTEWATER ENGINEERING            | 9        | 51       | 4       |
| 11W61A0142 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 9        | 12       | 0       |
| 11W61A0142 | R32014  | WATER RESOURCES ENGINEERING-II              | 9        | 36       | 4       |
| 11W61A0142 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 13       | 34       | 4       |
| 11W61A0142 | R32016  | TRANSPORTATION ENGINEERING-II               | 11       | 6        | 0       |
| 11W61A0142 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 41       | 2       |
| 11W61A0142 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 36       | 2       |
| 11W61A0152 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 0        | -1       | 0       |
| 11W61A0201 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 13       | 21       | 0       |
| 11W61A0211 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 11       | -1       | 0       |
| 11W61A0213 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 12       | 28       | 4       |
| 11W61A0213 | R32026  | MANAGEMENT SCIENCE                          | 14       | 28       | 4       |
| 11W61A0216 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 17       | 32       | 4       |
| 11W61A0222 | R32022  | POWER SYSTEM ANALYSIS                       | 21       | 27       | 4       |
| 11W61A0222 | R32025  | POWER SEMICONDUCTOR DRIVES                  | 22       | 33       | 4       |
| 11W61A0224 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 18       | 28       | 4       |
| 11W61A0230 | R32021  | ELECTRICAL MACHINE DESIGN                   | 8        | 19       | 0       |
| 11W61A0230 | R32022  | POWER SYSTEM ANALYSIS                       | 6        | 13       | 0       |
| 11W61A0230 | R32023  | UTILIZATION OF ELECTRICAL ENERGY            | 0        | -1       | 0       |
| 11W61A0230 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 0        | -1       | 0       |
| 11W61A0230 | R32025  | POWER SEMICONDUCTOR DRIVES                  | 7        | -1       | 0       |
| 11W61A0230 | R32026  | MANAGEMENT SCIENCE                          | 0        | -1       | 0       |
| 11W61A0230 | R32027  | POWER ELECTRONICS LAB                       | 12       | -1       | 0       |
| 11W61A0230 | R32028  | ELECTRICAL MEASUREMENTS LAB                 | 14       | -1       | 0       |
| 11W61A0241 | R32021  | ELECTRICAL MACHINE DESIGN                   | 12       | 12       | 0       |
| 11W61A0241 | R32022  | POWER SYSTEM ANALYSIS                       | 12       | -1       | 0       |
| 11W61A0257 | R32021  | ELECTRICAL MACHINE DESIGN                   | 17       | 27       | 4       |
| 11W61A0257 | R32022  | POWER SYSTEM ANALYSIS                       | 17       | 5        | 0       |
| 11W61A0257 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 17       | 7        | 0       |
| 11W61A0257 | R32025  | POWER SEMICONDUCTOR DRIVES                  | 21       | 9        | 0       |
| 11W61A0257 | R32026  | MANAGEMENT SCIENCE                          | 17       | 29       | 4       |
| 11W61A0261 | R32021  | ELECTRICAL MACHINE DESIGN                   | 24       | 37       | 4       |
| 11W61A0265 | R32025  | POWER SEMICONDUCTOR DRIVES                  | 23       | 26       | 4       |
| 11W61A0269 | R32021  | ELECTRICAL MACHINE DESIGN                   | 24       | 29       | 4       |
| 11W61A0269 | R32022  | POWER SYSTEM ANALYSIS                       | 21       | 41       | 4       |
| 11W61A0269 | R32023  | UTILIZATION OF ELECTRICAL ENERGY            | 20       | 34       | 4       |
| 11W61A0269 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 23       | 49       | 4       |
| 11W61A0269 | R32025  | POWER SEMICONDUCTOR DRIVES                  | 21       | 10       | 0       |
| 11W61A0269 | R32026  | MANAGEMENT SCIENCE                          | 22       | 38       | 4       |
| 11W61A0269 | R32027  | POWER ELECTRONICS LAB                       | 22       | 42       | 2       |
| 11W61A0269 | R32028  | ELECTRICAL MEASUREMENTS LAB                 | 23       | 47       | 2       |
| 11W61A0270 | R32026  | MANAGEMENT SCIENCE                          | 18       | 36       | 4       |
| 11W61A0281 | R32021  | ELECTRICAL MACHINE DESIGN                   | 21       | 33       | 4       |
| 11W61A0283 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 18       | 27       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 11W61A0292 | R32024  | MICROPROCESSORS AND MICROCONTROLLER      | 16       | 2        | 0       |
| 11W61A0293 | R32021  | ELECTRICAL MACHINE DESIGN                | 17       | 13       | 0       |
| 11W61A0294 | R32024  | MICROPROCESSORS AND MICROCONTROLLER      | 14       | 35       | 4       |
| 11W61A0295 | R32021  | ELECTRICAL MACHINE DESIGN                | 12       | -1       | 0       |
| 11W61A0295 | R32023  | UTILIZATION OF ELECTRICAL ENERGY         | 12       | 36       | 4       |
| 11W61A0295 | R32025  | POWER SEMICONDUCTOR DRIVES               | 14       | 3        | 0       |
| 11W61A0322 | R32035  | DESIGN OF MACHINE MEMBERS_II             | 17       | 41       | 4       |
| 11W61A0323 | R32031  | METROLOGY                                | 20       | -1       | 0       |
| 11W61A0323 | R32032  | ROBOTICS                                 | 21       | 10       | 0       |
| 11W61A0323 | R32033  | HEAT TRANSFER                            | 5        | -1       | 0       |
| 11W61A0323 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS        | 14       | 5        | 0       |
| 11W61A0323 | R32035  | DESIGN OF MACHINE MEMBERS_II             | 20       | 2        | 0       |
| 11W61A0341 | R32031  | METROLOGY                                | 16       | 12       | 0       |
| 11W61A0404 | R32042  | MICROWAVE ENGINEERING                    | 20       | 4        | 0       |
| 11W61A0412 | R32042  | MICROWAVE ENGINEERING                    | 19       | 42       | 4       |
| 11W61A0436 | R32041  | COMPUTER NETWORKS                        | 15       | 19       | 0       |
| 11W61A0440 | R32043  | DIGITAL SIGNAL PROCESSING                | 8        | 1        | 0       |
| 11W61A0447 | R32042  | MICROWAVE ENGINEERING                    | 19       | 29       | 4       |
| 11W61A0447 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 20       | 14       | 0       |
| 11W61A0454 | R32042  | MICROWAVE ENGINEERING                    | 21       | 19       | 0       |
| 11W61A0468 | R32042  | MICROWAVE ENGINEERING                    | 0        | 19       | 0       |
| 11W61A0468 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 11       | -1       | 0       |
| 11W61A0468 | R32045  | VLSI DESIGN                              | 12       | -1       | 0       |
| 11W61A0470 | R32042  | MICROWAVE ENGINEERING                    | 24       | 40       | 4       |
| 11W61A0476 | R32041  | COMPUTER NETWORKS                        | 10       | 18       | 0       |
| 11W61A0486 | R32026  | MANAGEMENT SCIENCE                       | 0        | 21       | 0       |
| 11W61A0486 | R32041  | COMPUTER NETWORKS                        | 0        | 30       | 0       |
| 11W61A0486 | R32042  | MICROWAVE ENGINEERING                    | 0        | 7        | 0       |
| 11W61A0486 | R32043  | DIGITAL SIGNAL PROCESSING                | 0        | 2        | 0       |
| 11W61A0486 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 0        | 10       | 0       |
| 11W61A0486 | R32045  | VLSI DESIGN                              | 0        | 26       | 0       |
| 11W61A0486 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 0        | 28       | 0       |
| 11W61A0486 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 6        | 28       | 2       |
| 11W61A0490 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 11       | 0       |
| 11W61A0490 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 18       | 12       | 0       |
| 11W61A0492 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 21       | -1       | 0       |
| 11W61A04A2 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 21       | 13       | 0       |
| 11W61A04A9 | R32042  | MICROWAVE ENGINEERING                    | 17       | 37       | 4       |
| 11W61A04B2 | R32042  | MICROWAVE ENGINEERING                    | 21       | 6        | 0       |
| 11W61A04B2 | R32043  | DIGITAL SIGNAL PROCESSING                | 14       | 17       | 0       |
| 11W61A04B2 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 18       | 38       | 4       |
| 11W61A04B2 | R32045  | VLSI DESIGN                              | 19       | 10       | 0       |
| 11W61A04B3 | R32026  | MANAGEMENT SCIENCE                       | 0        | 9        | 0       |
| 11W61A04B3 | R32041  | COMPUTER NETWORKS                        | 8        | 9        | 0       |
| 11W61A04B3 | R32042  | MICROWAVE ENGINEERING                    | 0        | 2        | 0       |
| 11W61A04B3 | R32043  | DIGITAL SIGNAL PROCESSING                | 0        | 0        | 0       |
| 11W61A04B3 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 0        | 2        | 0       |
| 11W61A04B3 | R32045  | VLSI DESIGN                              | 4        | 0        | 0       |
| 11W61A04B5 | R32042  | MICROWAVE ENGINEERING                    | 16       | 49       | 4       |
| 11W61A04B9 | R32042  | MICROWAVE ENGINEERING                    | 22       | 26       | 4       |
| 11W61A0505 | R32051  | ADVANCED COMPUTER NETWORKS               | 12       | 29       | 4       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 11W61A0505 | R32054  | UNIX PROGRAMMING                            | 17       | 14       | 0       |
| 11W61A0506 | R32052  | COMPUTER ARCHITECTURE                       | 17       | 48       | 4       |
| 11W61A0506 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES          | 19       | 30       | 4       |
| 11W61A0511 | R32051  | ADVANCED COMPUTER NETWORKS                  | 11       | 39       | 4       |
| 11W61A0511 | R32054  | UNIX PROGRAMMING                            | 10       | 31       | 4       |
| 11W61A0521 | R32026  | MANAGEMENT SCIENCE                          | 11       | -1       | 0       |
| 11W61A0521 | R32051  | ADVANCED COMPUTER NETWORKS                  | 11       | 0        | 0       |
| 11W61A0521 | R32052  | COMPUTER ARCHITECTURE                       | 18       | 0        | 0       |
| 11W61A0521 | R32054  | UNIX PROGRAMMING                            | 14       | 7        | 0       |
| 11W61A0521 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES          | 17       | 3        | 0       |
| 11W61A0524 | R32051  | ADVANCED COMPUTER NETWORKS                  | 11       | 32       | 4       |
| 11W61A0524 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES          | 17       | 26       | 4       |
| 11W61A0534 | R32051  | ADVANCED COMPUTER NETWORKS                  | 10       | 18       | 0       |
| 11W61A0534 | R32052  | COMPUTER ARCHITECTURE                       | 18       | -1       | 0       |
| 11W61A0534 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS           | 8        | 9        | 0       |
| 11W61A0534 | R32054  | UNIX PROGRAMMING                            | 10       | 6        | 0       |
| 11W61A0534 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES          | 15       | 18       | 0       |
| 11W61A0539 | R32054  | UNIX PROGRAMMING                            | 6        | 19       | 0       |
| 11W61A0568 | R32054  | UNIX PROGRAMMING                            | 12       | 27       | 0       |
| 11W61A0589 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS           | 13       | -1       | 0       |
| 11W61A0589 | R32054  | UNIX PROGRAMMING                            | 10       | 11       | 0       |
| 11W61A0589 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES          | 14       | 19       | 0       |
| 11W61A05A7 | R32026  | MANAGEMENT SCIENCE                          | 9        | 44       | 4       |
| 11W61A05A8 | R32052  | COMPUTER ARCHITECTURE                       | 13       | 31       | 4       |
| 11W61A05A8 | R32054  | UNIX PROGRAMMING                            | 17       | 14       | 0       |
| 11W61A05A9 | R32054  | UNIX PROGRAMMING                            | 4        | 11       | 0       |
| 11W61A05A9 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES          | 18       | 15       | 0       |
| 11W61A05B0 | R32052  | COMPUTER ARCHITECTURE                       | 9        | 35       | 4       |
| 11W61A05B0 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS           | 5        | 27       | 0       |
| 11W61A05B0 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES          | 9        | -1       | 0       |
| 11W65A0106 | R32014  | WATER RESOURCES ENGINEERING-II              | 8        | -1       | 0       |
| 11W65A0302 | R32033  | HEAT TRANSFER                               | 6        | 36       | 4       |
| 12W61A0101 | R32011  | GEOTECHNICAL ENGINEERING - I                | 20       | 46       | 4       |
| 12W61A0101 | R32012  | WATER AND WASTEWATER ENGINEERING            | 20       | 46       | 4       |
| 12W61A0101 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 22       | 42       | 4       |
| 12W61A0101 | R32014  | WATER RESOURCES ENGINEERING-II              | 22       | 68       | 4       |
| 12W61A0101 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 75       | 4       |
| 12W61A0101 | R32016  | TRANSPORTATION ENGINEERING-II               | 20       | 46       | 4       |
| 12W61A0101 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 49       | 2       |
| 12W61A0101 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 44       | 2       |
| 12W61A0102 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 41       | 4       |
| 12W61A0102 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 64       | 4       |
| 12W61A0102 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 64       | 4       |
| 12W61A0102 | R32014  | WATER RESOURCES ENGINEERING-II              | 17       | 40       | 4       |
| 12W61A0102 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 60       | 4       |
| 12W61A0102 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 43       | 4       |
| 12W61A0102 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 24       | 49       | 2       |
| 12W61A0102 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 47       | 2       |
| 12W61A0103 | R32011  | GEOTECHNICAL ENGINEERING - I                | 17       | 35       | 4       |
| 12W61A0103 | R32012  | WATER AND WASTEWATER ENGINEERING            | 18       | 40       | 4       |
| 12W61A0103 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 16       | 39       | 4       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 12W61A0103 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 52       | 4       |
| 12W61A0103 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 67       | 4       |
| 12W61A0103 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 63       | 4       |
| 12W61A0103 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 50       | 2       |
| 12W61A0103 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 45       | 2       |
| 12W61A0104 | R32011  | GEOTECHNICAL ENGINEERING - I                | 14       | 40       | 4       |
| 12W61A0104 | R32012  | WATER AND WASTEWATER ENGINEERING            | 15       | 56       | 4       |
| 12W61A0104 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 46       | 4       |
| 12W61A0104 | R32014  | WATER RESOURCES ENGINEERING-II              | 13       | 44       | 4       |
| 12W61A0104 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 62       | 4       |
| 12W61A0104 | R32016  | TRANSPORTATION ENGINEERING-II               | 20       | 31       | 4       |
| 12W61A0104 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 47       | 2       |
| 12W61A0104 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 48       | 2       |
| 12W61A0105 | R32011  | GEOTECHNICAL ENGINEERING - I                | 15       | 34       | 4       |
| 12W61A0105 | R32012  | WATER AND WASTEWATER ENGINEERING            | 10       | 42       | 4       |
| 12W61A0105 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 13       | 27       | 4       |
| 12W61A0105 | R32014  | WATER RESOURCES ENGINEERING-II              | 13       | 30       | 4       |
| 12W61A0105 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 15       | 33       | 4       |
| 12W61A0105 | R32016  | TRANSPORTATION ENGINEERING-II               | 11       | 37       | 4       |
| 12W61A0105 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 44       | 2       |
| 12W61A0105 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 36       | 2       |
| 12W61A0106 | R32011  | GEOTECHNICAL ENGINEERING - I                | 18       | 47       | 4       |
| 12W61A0106 | R32012  | WATER AND WASTEWATER ENGINEERING            | 14       | 38       | 4       |
| 12W61A0106 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 16       | 75       | 4       |
| 12W61A0106 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 15       | 0       |
| 12W61A0106 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 20       | 31       | 4       |
| 12W61A0106 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 32       | 4       |
| 12W61A0106 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 44       | 2       |
| 12W61A0106 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 43       | 2       |
| 12W61A0107 | R32011  | GEOTECHNICAL ENGINEERING - I                | 17       | 41       | 4       |
| 12W61A0107 | R32012  | WATER AND WASTEWATER ENGINEERING            | 18       | 43       | 4       |
| 12W61A0107 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 39       | 4       |
| 12W61A0107 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 51       | 4       |
| 12W61A0107 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 61       | 4       |
| 12W61A0107 | R32016  | TRANSPORTATION ENGINEERING-II               | 14       | 51       | 4       |
| 12W61A0107 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 24       | 47       | 2       |
| 12W61A0107 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 45       | 2       |
| 12W61A0108 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 30       | 4       |
| 12W61A0108 | R32012  | WATER AND WASTEWATER ENGINEERING            | 20       | 64       | 4       |
| 12W61A0108 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 18       | 11       | 0       |
| 12W61A0108 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 42       | 4       |
| 12W61A0108 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 54       | 4       |
| 12W61A0108 | R32016  | TRANSPORTATION ENGINEERING-II               | 19       | 38       | 4       |
| 12W61A0108 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 44       | 2       |
| 12W61A0108 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 36       | 2       |
| 12W61A0109 | R32011  | GEOTECHNICAL ENGINEERING - I                | 21       | 31       | 4       |
| 12W61A0109 | R32012  | WATER AND WASTEWATER ENGINEERING            | 19       | 46       | 4       |
| 12W61A0109 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 21       | 33       | 4       |
| 12W61A0109 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 31       | 4       |
| 12W61A0109 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 59       | 4       |
| 12W61A0109 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 33       | 4       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 12W61A0109 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 50       | 2       |
| 12W61A0109 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 38       | 2       |
| 12W61A0110 | R32011  | GEOTECHNICAL ENGINEERING - I                | 16       | 72       | 4       |
| 12W61A0110 | R32012  | WATER AND WASTEWATER ENGINEERING            | 20       | 50       | 4       |
| 12W61A0110 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 22       | 75       | 4       |
| 12W61A0110 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 42       | 4       |
| 12W61A0110 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 47       | 4       |
| 12W61A0110 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 44       | 4       |
| 12W61A0110 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 23       | 48       | 2       |
| 12W61A0110 | R32018  | TRANSPORTATION ENGINEERING LAB              | 22       | 37       | 2       |
| 12W61A0111 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 46       | 4       |
| 12W61A0111 | R32012  | WATER AND WASTEWATER ENGINEERING            | 13       | 39       | 4       |
| 12W61A0111 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 17       | 39       | 4       |
| 12W61A0111 | R32014  | WATER RESOURCES ENGINEERING-II              | 13       | 57       | 4       |
| 12W61A0111 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 41       | 4       |
| 12W61A0111 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 39       | 4       |
| 12W61A0111 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 24       | 47       | 2       |
| 12W61A0111 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 43       | 2       |
| 12W61A0112 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 37       | 4       |
| 12W61A0112 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 64       | 4       |
| 12W61A0112 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 22       | 51       | 4       |
| 12W61A0112 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 39       | 4       |
| 12W61A0112 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 66       | 4       |
| 12W61A0112 | R32016  | TRANSPORTATION ENGINEERING-II               | 19       | 31       | 4       |
| 12W61A0112 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 23       | 45       | 2       |
| 12W61A0112 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 44       | 2       |
| 12W61A0113 | R32011  | GEOTECHNICAL ENGINEERING - I                | 14       | 26       | 4       |
| 12W61A0113 | R32012  | WATER AND WASTEWATER ENGINEERING            | 11       | 13       | 0       |
| 12W61A0113 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 16       | 14       | 0       |
| 12W61A0113 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 40       | 4       |
| 12W61A0113 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 12       | 0       |
| 12W61A0113 | R32016  | TRANSPORTATION ENGINEERING-II               | 13       | 31       | 4       |
| 12W61A0113 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 43       | 2       |
| 12W61A0113 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 41       | 2       |
| 12W61A0114 | R32011  | GEOTECHNICAL ENGINEERING - I                | 18       | 61       | 4       |
| 12W61A0114 | R32012  | WATER AND WASTEWATER ENGINEERING            | 15       | 48       | 4       |
| 12W61A0114 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 19       | 75       | 4       |
| 12W61A0114 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 41       | 4       |
| 12W61A0114 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 52       | 4       |
| 12W61A0114 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 43       | 4       |
| 12W61A0114 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 24       | 47       | 2       |
| 12W61A0114 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 47       | 2       |
| 12W61A0115 | R32011  | GEOTECHNICAL ENGINEERING - I                | 16       | 43       | 4       |
| 12W61A0115 | R32012  | WATER AND WASTEWATER ENGINEERING            | 18       | 33       | 4       |
| 12W61A0115 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 29       | 4       |
| 12W61A0115 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 56       | 4       |
| 12W61A0115 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 60       | 4       |
| 12W61A0115 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 41       | 4       |
| 12W61A0115 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 50       | 2       |
| 12W61A0115 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 46       | 2       |
| 12W61A0117 | R32011  | GEOTECHNICAL ENGINEERING - I                | 21       | 36       | 4       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 12W61A0117 | R32012  | WATER AND WASTEWATER ENGINEERING            | 19       | 55       | 4       |
| 12W61A0117 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 26       | 4       |
| 12W61A0117 | R32014  | WATER RESOURCES ENGINEERING-II              | 17       | 31       | 4       |
| 12W61A0117 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 53       | 4       |
| 12W61A0117 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 46       | 4       |
| 12W61A0117 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 50       | 2       |
| 12W61A0117 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 48       | 2       |
| 12W61A0118 | R32011  | GEOTECHNICAL ENGINEERING - I                | 20       | 49       | 4       |
| 12W61A0118 | R32012  | WATER AND WASTEWATER ENGINEERING            | 19       | 43       | 4       |
| 12W61A0118 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 19       | 0       |
| 12W61A0118 | R32014  | WATER RESOURCES ENGINEERING-II              | 17       | 66       | 4       |
| 12W61A0118 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 75       | 4       |
| 12W61A0118 | R32016  | TRANSPORTATION ENGINEERING-II               | 20       | 49       | 4       |
| 12W61A0118 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 47       | 2       |
| 12W61A0118 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 42       | 2       |
| 12W61A0119 | R32011  | GEOTECHNICAL ENGINEERING - I                | 15       | 50       | 4       |
| 12W61A0119 | R32012  | WATER AND WASTEWATER ENGINEERING            | 13       | 46       | 4       |
| 12W61A0119 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 42       | 4       |
| 12W61A0119 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 32       | 4       |
| 12W61A0119 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 20       | 37       | 4       |
| 12W61A0119 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 38       | 4       |
| 12W61A0119 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 46       | 2       |
| 12W61A0119 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 44       | 2       |
| 12W61A0120 | R32011  | GEOTECHNICAL ENGINEERING - I                | 9        | 44       | 4       |
| 12W61A0120 | R32012  | WATER AND WASTEWATER ENGINEERING            | 15       | 39       | 4       |
| 12W61A0120 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 0        | 16       | 0       |
| 12W61A0120 | R32014  | WATER RESOURCES ENGINEERING-II              | 12       | 56       | 4       |
| 12W61A0120 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 15       | 49       | 4       |
| 12W61A0120 | R32016  | TRANSPORTATION ENGINEERING-II               | 14       | 37       | 4       |
| 12W61A0120 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 15       | 41       | 2       |
| 12W61A0120 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 42       | 2       |
| 12W61A0121 | R32011  | GEOTECHNICAL ENGINEERING - I                | 22       | 45       | 4       |
| 12W61A0121 | R32012  | WATER AND WASTEWATER ENGINEERING            | 22       | 65       | 4       |
| 12W61A0121 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 19       | 37       | 4       |
| 12W61A0121 | R32014  | WATER RESOURCES ENGINEERING-II              | 20       | 52       | 4       |
| 12W61A0121 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 52       | 4       |
| 12W61A0121 | R32016  | TRANSPORTATION ENGINEERING-II               | 20       | 51       | 4       |
| 12W61A0121 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 24       | 49       | 2       |
| 12W61A0121 | R32018  | TRANSPORTATION ENGINEERING LAB              | 22       | 44       | 2       |
| 12W61A0122 | R32011  | GEOTECHNICAL ENGINEERING - I                | 12       | 32       | 4       |
| 12W61A0122 | R32012  | WATER AND WASTEWATER ENGINEERING            | 13       | 35       | 4       |
| 12W61A0122 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 10       | 20       | 0       |
| 12W61A0122 | R32014  | WATER RESOURCES ENGINEERING-II              | 12       | 49       | 4       |
| 12W61A0122 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 22       | 0        | 0       |
| 12W61A0122 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 37       | 4       |
| 12W61A0122 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 19       | 40       | 2       |
| 12W61A0122 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 35       | 2       |
| 12W61A0123 | R32011  | GEOTECHNICAL ENGINEERING - I                | 13       | 72       | 4       |
| 12W61A0123 | R32012  | WATER AND WASTEWATER ENGINEERING            | 15       | 50       | 4       |
| 12W61A0123 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 17       | 65       | 4       |
| 12W61A0123 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 47       | 4       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 12W61A0123 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 31       | 4       |
| 12W61A0123 | R32016  | TRANSPORTATION ENGINEERING-II               | 14       | 44       | 4       |
| 12W61A0123 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 47       | 2       |
| 12W61A0123 | R32018  | TRANSPORTATION ENGINEERING LAB              | 20       | 45       | 2       |
| 12W61A0124 | R32011  | GEOTECHNICAL ENGINEERING - I                | 13       | 33       | 4       |
| 12W61A0124 | R32012  | WATER AND WASTEWATER ENGINEERING            | 12       | 53       | 4       |
| 12W61A0124 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 14       | 39       | 4       |
| 12W61A0124 | R32014  | WATER RESOURCES ENGINEERING-II              | 13       | 64       | 4       |
| 12W61A0124 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 13       | 45       | 4       |
| 12W61A0124 | R32016  | TRANSPORTATION ENGINEERING-II               | 21       | 68       | 4       |
| 12W61A0124 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 45       | 2       |
| 12W61A0124 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 42       | 2       |
| 12W61A0125 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 40       | 4       |
| 12W61A0125 | R32012  | WATER AND WASTEWATER ENGINEERING            | 18       | 64       | 4       |
| 12W61A0125 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 15       | 41       | 4       |
| 12W61A0125 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 53       | 4       |
| 12W61A0125 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 58       | 4       |
| 12W61A0125 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 38       | 4       |
| 12W61A0125 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 50       | 2       |
| 12W61A0125 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 43       | 2       |
| 12W61A0126 | R32011  | GEOTECHNICAL ENGINEERING - I                | 14       | 26       | 4       |
| 12W61A0126 | R32012  | WATER AND WASTEWATER ENGINEERING            | 12       | 32       | 4       |
| 12W61A0126 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 19       | 15       | 0       |
| 12W61A0126 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 37       | 4       |
| 12W61A0126 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 11       | 17       | 0       |
| 12W61A0126 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 30       | 4       |
| 12W61A0126 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 20       | 45       | 2       |
| 12W61A0126 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 38       | 2       |
| 12W61A0127 | R32011  | GEOTECHNICAL ENGINEERING - I                | 16       | 45       | 4       |
| 12W61A0127 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 50       | 4       |
| 12W61A0127 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 17       | 75       | 4       |
| 12W61A0127 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 45       | 4       |
| 12W61A0127 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 20       | 64       | 4       |
| 12W61A0127 | R32016  | TRANSPORTATION ENGINEERING-II               | 14       | 39       | 4       |
| 12W61A0127 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 18       | 41       | 2       |
| 12W61A0127 | R32018  | TRANSPORTATION ENGINEERING LAB              | 20       | 38       | 2       |
| 12W61A0128 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 44       | 4       |
| 12W61A0128 | R32012  | WATER AND WASTEWATER ENGINEERING            | 16       | 40       | 4       |
| 12W61A0128 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 21       | 42       | 4       |
| 12W61A0128 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 58       | 4       |
| 12W61A0128 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 20       | 59       | 4       |
| 12W61A0128 | R32016  | TRANSPORTATION ENGINEERING-II               | 14       | 65       | 4       |
| 12W61A0128 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 46       | 2       |
| 12W61A0128 | R32018  | TRANSPORTATION ENGINEERING LAB              | 20       | 43       | 2       |
| 12W61A0129 | R32011  | GEOTECHNICAL ENGINEERING - I                | 16       | 26       | 4       |
| 12W61A0129 | R32012  | WATER AND WASTEWATER ENGINEERING            | 15       | 60       | 4       |
| 12W61A0129 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 15       | 34       | 4       |
| 12W61A0129 | R32014  | WATER RESOURCES ENGINEERING-II              | 11       | 40       | 4       |
| 12W61A0129 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 18       | 44       | 4       |
| 12W61A0129 | R32016  | TRANSPORTATION ENGINEERING-II               | 15       | 16       | 0       |
| 12W61A0129 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 42       | 2       |



| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 12W61A0129 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 42       | 2       |
| 12W61A0130 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 39       | 4       |
| 12W61A0130 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 44       | 4       |
| 12W61A0130 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 15       | 26       | 4       |
| 12W61A0130 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 55       | 4       |
| 12W61A0130 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 15       | 34       | 4       |
| 12W61A0130 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 32       | 4       |
| 12W61A0130 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 20       | 42       | 2       |
| 12W61A0130 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 40       | 2       |
| 12W61A0131 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 57       | 4       |
| 12W61A0131 | R32012  | WATER AND WASTEWATER ENGINEERING            | 20       | 52       | 4       |
| 12W61A0131 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 58       | 4       |
| 12W61A0131 | R32014  | WATER RESOURCES ENGINEERING-II              | 12       | 41       | 4       |
| 12W61A0131 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 20       | 64       | 4       |
| 12W61A0131 | R32016  | TRANSPORTATION ENGINEERING-II               | 12       | 45       | 4       |
| 12W61A0131 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 44       | 2       |
| 12W61A0131 | R32018  | TRANSPORTATION ENGINEERING LAB              | 21       | 41       | 2       |
| 12W61A0132 | R32011  | GEOTECHNICAL ENGINEERING - I                | 16       | 45       | 4       |
| 12W61A0132 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 56       | 4       |
| 12W61A0132 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 22       | 39       | 4       |
| 12W61A0132 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 56       | 4       |
| 12W61A0132 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 60       | 4       |
| 12W61A0132 | R32016  | TRANSPORTATION ENGINEERING-II               | 19       | 48       | 4       |
| 12W61A0132 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 24       | 50       | 2       |
| 12W61A0132 | R32018  | TRANSPORTATION ENGINEERING LAB              | 22       | 44       | 2       |
| 12W61A0133 | R32011  | GEOTECHNICAL ENGINEERING - I                | 20       | 26       | 4       |
| 12W61A0133 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 63       | 4       |
| 12W61A0133 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 18       | 44       | 4       |
| 12W61A0133 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 32       | 4       |
| 12W61A0133 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 53       | 4       |
| 12W61A0133 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 8        | 0       |
| 12W61A0133 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 20       | 47       | 2       |
| 12W61A0133 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 42       | 2       |
| 12W61A0134 | R32011  | GEOTECHNICAL ENGINEERING - I                | 17       | 16       | 0       |
| 12W61A0134 | R32012  | WATER AND WASTEWATER ENGINEERING            | 12       | 18       | 0       |
| 12W61A0134 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 15       | 26       | 4       |
| 12W61A0134 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 19       | 0       |
| 12W61A0134 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 18       | 17       | 0       |
| 12W61A0134 | R32016  | TRANSPORTATION ENGINEERING-II               | 10       | 31       | 4       |
| 12W61A0134 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 47       | 2       |
| 12W61A0134 | R32018  | TRANSPORTATION ENGINEERING LAB              | 22       | 41       | 2       |
| 12W61A0135 | R32011  | GEOTECHNICAL ENGINEERING - I                | 17       | 63       | 4       |
| 12W61A0135 | R32012  | WATER AND WASTEWATER ENGINEERING            | 15       | 53       | 4       |
| 12W61A0135 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 18       | 75       | 4       |
| 12W61A0135 | R32014  | WATER RESOURCES ENGINEERING-II              | 12       | 41       | 4       |
| 12W61A0135 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 59       | 4       |
| 12W61A0135 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 37       | 4       |
| 12W61A0135 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 20       | 45       | 2       |
| 12W61A0135 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 39       | 2       |
| 12W61A0136 | R32011  | GEOTECHNICAL ENGINEERING - I                | 15       | 17       | 0       |
| 12W61A0136 | R32012  | WATER AND WASTEWATER ENGINEERING            | 12       | 41       | 4       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 12W61A0136 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 16       | 27       | 4       |
| 12W61A0136 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 55       | 4       |
| 12W61A0136 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 15       | 49       | 4       |
| 12W61A0136 | R32016  | TRANSPORTATION ENGINEERING-II               | 14       | 62       | 4       |
| 12W61A0136 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 44       | 2       |
| 12W61A0136 | R32018  | TRANSPORTATION ENGINEERING LAB              | 22       | 40       | 2       |
| 12W61A0137 | R32011  | GEOTECHNICAL ENGINEERING - I                | 14       | 38       | 4       |
| 12W61A0137 | R32012  | WATER AND WASTEWATER ENGINEERING            | 12       | 61       | 4       |
| 12W61A0137 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 9        | 44       | 4       |
| 12W61A0137 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 42       | 4       |
| 12W61A0137 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 17       | 35       | 4       |
| 12W61A0137 | R32016  | TRANSPORTATION ENGINEERING-II               | 14       | 31       | 4       |
| 12W61A0137 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 45       | 2       |
| 12W61A0137 | R32018  | TRANSPORTATION ENGINEERING LAB              | 21       | 41       | 2       |
| 12W61A0138 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 28       | 4       |
| 12W61A0138 | R32012  | WATER AND WASTEWATER ENGINEERING            | 16       | 56       | 4       |
| 12W61A0138 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 10       | 13       | 0       |
| 12W61A0138 | R32014  | WATER RESOURCES ENGINEERING-II              | 17       | 43       | 4       |
| 12W61A0138 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 21       | 34       | 4       |
| 12W61A0138 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 33       | 4       |
| 12W61A0138 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 23       | 48       | 2       |
| 12W61A0138 | R32018  | TRANSPORTATION ENGINEERING LAB              | 20       | 41       | 2       |
| 12W61A0139 | R32011  | GEOTECHNICAL ENGINEERING - I                | 17       | 66       | 4       |
| 12W61A0139 | R32012  | WATER AND WASTEWATER ENGINEERING            | 16       | 56       | 4       |
| 12W61A0139 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 21       | 36       | 4       |
| 12W61A0139 | R32014  | WATER RESOURCES ENGINEERING-II              | 18       | 44       | 4       |
| 12W61A0139 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 62       | 4       |
| 12W61A0139 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 47       | 4       |
| 12W61A0139 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 44       | 2       |
| 12W61A0139 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 44       | 2       |
| 12W61A0140 | R32011  | GEOTECHNICAL ENGINEERING - I                | 7        | 12       | 0       |
| 12W61A0140 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 44       | 4       |
| 12W61A0140 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 9        | 14       | 0       |
| 12W61A0140 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 40       | 4       |
| 12W61A0140 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 15       | 42       | 4       |
| 12W61A0140 | R32016  | TRANSPORTATION ENGINEERING-II               | 14       | 43       | 4       |
| 12W61A0140 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 20       | 40       | 2       |
| 12W61A0140 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 40       | 2       |
| 12W61A0141 | R32011  | GEOTECHNICAL ENGINEERING - I                | 14       | 26       | 4       |
| 12W61A0141 | R32012  | WATER AND WASTEWATER ENGINEERING            | 9        | 49       | 4       |
| 12W61A0141 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 9        | 31       | 4       |
| 12W61A0141 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 31       | 4       |
| 12W61A0141 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 19       | 9        | 0       |
| 12W61A0141 | R32016  | TRANSPORTATION ENGINEERING-II               | 13       | 2        | 0       |
| 12W61A0141 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 44       | 2       |
| 12W61A0141 | R32018  | TRANSPORTATION ENGINEERING LAB              | 22       | 39       | 2       |
| 12W61A0143 | R32011  | GEOTECHNICAL ENGINEERING - I                | 17       | 17       | 0       |
| 12W61A0143 | R32012  | WATER AND WASTEWATER ENGINEERING            | 13       | 27       | 4       |
| 12W61A0143 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 16       | 26       | 4       |
| 12W61A0143 | R32014  | WATER RESOURCES ENGINEERING-II              | 13       | 27       | 4       |
| 12W61A0143 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 16       | 14       | 0       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 12W61A0143 | R32016  | TRANSPORTATION ENGINEERING-II               | 10       | 30       | 4       |
| 12W61A0143 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 46       | 2       |
| 12W61A0143 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 44       | 2       |
| 12W61A0145 | R32011  | GEOTECHNICAL ENGINEERING - I                | 16       | 45       | 4       |
| 12W61A0145 | R32012  | WATER AND WASTEWATER ENGINEERING            | 16       | 63       | 4       |
| 12W61A0145 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 21       | 42       | 4       |
| 12W61A0145 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 42       | 4       |
| 12W61A0145 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 22       | 31       | 4       |
| 12W61A0145 | R32016  | TRANSPORTATION ENGINEERING-II               | 19       | 31       | 4       |
| 12W61A0145 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 46       | 2       |
| 12W61A0145 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 43       | 2       |
| 12W61A0146 | R32011  | GEOTECHNICAL ENGINEERING - I                | 18       | 39       | 4       |
| 12W61A0146 | R32012  | WATER AND WASTEWATER ENGINEERING            | 15       | 59       | 4       |
| 12W61A0146 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 19       | 26       | 4       |
| 12W61A0146 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 55       | 4       |
| 12W61A0146 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 41       | 4       |
| 12W61A0146 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 46       | 4       |
| 12W61A0146 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 23       | 48       | 2       |
| 12W61A0146 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 45       | 2       |
| 12W61A0147 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 26       | 4       |
| 12W61A0147 | R32012  | WATER AND WASTEWATER ENGINEERING            | 16       | 56       | 4       |
| 12W61A0147 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 16       | 39       | 4       |
| 12W61A0147 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 41       | 4       |
| 12W61A0147 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 51       | 4       |
| 12W61A0147 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 42       | 4       |
| 12W61A0147 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 47       | 2       |
| 12W61A0147 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 42       | 2       |
| 12W61A0148 | R32011  | GEOTECHNICAL ENGINEERING - I                | 21       | 52       | 4       |
| 12W61A0148 | R32012  | WATER AND WASTEWATER ENGINEERING            | 19       | 38       | 4       |
| 12W61A0148 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 30       | 4       |
| 12W61A0148 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 59       | 4       |
| 12W61A0148 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 56       | 4       |
| 12W61A0148 | R32016  | TRANSPORTATION ENGINEERING-II               | 18       | 36       | 4       |
| 12W61A0148 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 24       | 50       | 2       |
| 12W61A0148 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 40       | 2       |
| 12W61A0149 | R32011  | GEOTECHNICAL ENGINEERING - I                | 15       | 62       | 4       |
| 12W61A0149 | R32012  | WATER AND WASTEWATER ENGINEERING            | 16       | 54       | 4       |
| 12W61A0149 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 18       | 27       | 4       |
| 12W61A0149 | R32014  | WATER RESOURCES ENGINEERING-II              | 13       | 38       | 4       |
| 12W61A0149 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 53       | 4       |
| 12W61A0149 | R32016  | TRANSPORTATION ENGINEERING-II               | 13       | 38       | 4       |
| 12W61A0149 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 24       | 49       | 2       |
| 12W61A0149 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 45       | 2       |
| 12W61A0150 | R32011  | GEOTECHNICAL ENGINEERING - I                | 21       | 33       | 4       |
| 12W61A0150 | R32012  | WATER AND WASTEWATER ENGINEERING            | 19       | 36       | 4       |
| 12W61A0150 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 42       | 4       |
| 12W61A0150 | R32014  | WATER RESOURCES ENGINEERING-II              | 18       | 33       | 4       |
| 12W61A0150 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 56       | 4       |
| 12W61A0150 | R32016  | TRANSPORTATION ENGINEERING-II               | 19       | 34       | 4       |
| 12W61A0150 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 48       | 2       |
| 12W61A0150 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 46       | 2       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0201 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 36       | 4       |
| 12W61A0201 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 46       | 4       |
| 12W61A0201 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 23       | 42       | 4       |
| 12W61A0201 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 21       | 35       | 4       |
| 12W61A0201 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 28       | 4       |
| 12W61A0201 | R32026  | MANAGEMENT SCIENCE                  | 21       | 37       | 4       |
| 12W61A0201 | R32027  | POWER ELECTRONICS LAB               | 25       | 44       | 2       |
| 12W61A0201 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 48       | 2       |
| 12W61A0202 | R32021  | ELECTRICAL MACHINE DESIGN           | 25       | 58       | 4       |
| 12W61A0202 | R32022  | POWER SYSTEM ANALYSIS               | 24       | 47       | 4       |
| 12W61A0202 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 25       | 62       | 4       |
| 12W61A0202 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 22       | 49       | 4       |
| 12W61A0202 | R32025  | POWER SEMICONDUCTOR DRIVES          | 25       | 43       | 4       |
| 12W61A0202 | R32026  | MANAGEMENT SCIENCE                  | 21       | 35       | 4       |
| 12W61A0202 | R32027  | POWER ELECTRONICS LAB               | 24       | 46       | 2       |
| 12W61A0202 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 49       | 2       |
| 12W61A0203 | R32021  | ELECTRICAL MACHINE DESIGN           | 11       | 14       | 0       |
| 12W61A0203 | R32022  | POWER SYSTEM ANALYSIS               | 16       | 0        | 0       |
| 12W61A0203 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 7        | 0       |
| 12W61A0203 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 9        | 0        | 0       |
| 12W61A0203 | R32025  | POWER SEMICONDUCTOR DRIVES          | 4        | 0        | 0       |
| 12W61A0203 | R32026  | MANAGEMENT SCIENCE                  | 7        | 5        | 0       |
| 12W61A0203 | R32027  | POWER ELECTRONICS LAB               | 12       | -1       | 0       |
| 12W61A0203 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 15       | -1       | 0       |
| 12W61A0204 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 42       | 4       |
| 12W61A0204 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 42       | 4       |
| 12W61A0204 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 45       | 4       |
| 12W61A0204 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 57       | 4       |
| 12W61A0204 | R32025  | POWER SEMICONDUCTOR DRIVES          | 18       | 10       | 0       |
| 12W61A0204 | R32026  | MANAGEMENT SCIENCE                  | 20       | 44       | 4       |
| 12W61A0204 | R32027  | POWER ELECTRONICS LAB               | 22       | 40       | 2       |
| 12W61A0204 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 45       | 2       |
| 12W61A0205 | R32021  | ELECTRICAL MACHINE DESIGN           | 15       | 15       | 0       |
| 12W61A0205 | R32022  | POWER SYSTEM ANALYSIS               | 12       | 33       | 4       |
| 12W61A0205 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 12       | 37       | 4       |
| 12W61A0205 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 8        | 18       | 0       |
| 12W61A0205 | R32025  | POWER SEMICONDUCTOR DRIVES          | 6        | 16       | 0       |
| 12W61A0205 | R32026  | MANAGEMENT SCIENCE                  | 10       | 30       | 4       |
| 12W61A0205 | R32027  | POWER ELECTRONICS LAB               | 22       | 25       | 2       |
| 12W61A0205 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 17       | 45       | 2       |
| 12W61A0206 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 14       | 0       |
| 12W61A0206 | R32022  | POWER SYSTEM ANALYSIS               | 13       | 39       | 4       |
| 12W61A0206 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 43       | 4       |
| 12W61A0206 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 11       | 5        | 0       |
| 12W61A0206 | R32025  | POWER SEMICONDUCTOR DRIVES          | 7        | 38       | 4       |
| 12W61A0206 | R32026  | MANAGEMENT SCIENCE                  | 9        | 31       | 4       |
| 12W61A0206 | R32027  | POWER ELECTRONICS LAB               | 20       | 26       | 2       |
| 12W61A0206 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 15       | 36       | 2       |
| 12W61A0207 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 27       | 4       |
| 12W61A0207 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 33       | 4       |
| 12W61A0207 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 31       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0207 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 12       | 53       | 4       |
| 12W61A0207 | R32025  | POWER SEMICONDUCTOR DRIVES          | 15       | 33       | 4       |
| 12W61A0207 | R32026  | MANAGEMENT SCIENCE                  | 15       | 36       | 4       |
| 12W61A0207 | R32027  | POWER ELECTRONICS LAB               | 22       | 46       | 2       |
| 12W61A0207 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 47       | 2       |
| 12W61A0208 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 27       | 4       |
| 12W61A0208 | R32022  | POWER SYSTEM ANALYSIS               | 13       | 7        | 0       |
| 12W61A0208 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 16       | 0       |
| 12W61A0208 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 6        | 36       | 4       |
| 12W61A0208 | R32025  | POWER SEMICONDUCTOR DRIVES          | 2        | 4        | 0       |
| 12W61A0208 | R32026  | MANAGEMENT SCIENCE                  | 11       | 33       | 4       |
| 12W61A0208 | R32027  | POWER ELECTRONICS LAB               | 20       | 30       | 2       |
| 12W61A0208 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 16       | 40       | 2       |
| 12W61A0209 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 36       | 4       |
| 12W61A0209 | R32022  | POWER SYSTEM ANALYSIS               | 23       | 47       | 4       |
| 12W61A0209 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 45       | 4       |
| 12W61A0209 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 19       | 35       | 4       |
| 12W61A0209 | R32025  | POWER SEMICONDUCTOR DRIVES          | 23       | 27       | 4       |
| 12W61A0209 | R32026  | MANAGEMENT SCIENCE                  | 20       | 31       | 4       |
| 12W61A0209 | R32027  | POWER ELECTRONICS LAB               | 25       | 48       | 2       |
| 12W61A0209 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 50       | 2       |
| 12W61A0210 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 27       | 4       |
| 12W61A0210 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 49       | 4       |
| 12W61A0210 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 17       | 49       | 4       |
| 12W61A0210 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 13       | 27       | 4       |
| 12W61A0210 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 35       | 4       |
| 12W61A0210 | R32026  | MANAGEMENT SCIENCE                  | 16       | 30       | 4       |
| 12W61A0210 | R32027  | POWER ELECTRONICS LAB               | 23       | 42       | 2       |
| 12W61A0210 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 45       | 2       |
| 12W61A0211 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 28       | 4       |
| 12W61A0211 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 31       | 4       |
| 12W61A0211 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 17       | 31       | 4       |
| 12W61A0211 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 53       | 4       |
| 12W61A0211 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 13       | 0       |
| 12W61A0211 | R32026  | MANAGEMENT SCIENCE                  | 14       | 43       | 4       |
| 12W61A0211 | R32027  | POWER ELECTRONICS LAB               | 22       | 41       | 2       |
| 12W61A0211 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 44       | 2       |
| 12W61A0212 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 54       | 4       |
| 12W61A0212 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 45       | 4       |
| 12W61A0212 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 54       | 4       |
| 12W61A0212 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 18       | 47       | 4       |
| 12W61A0212 | R32025  | POWER SEMICONDUCTOR DRIVES          | 18       | 6        | 0       |
| 12W61A0212 | R32026  | MANAGEMENT SCIENCE                  | 15       | 39       | 4       |
| 12W61A0212 | R32027  | POWER ELECTRONICS LAB               | 24       | 41       | 2       |
| 12W61A0212 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 46       | 2       |
| 12W61A0213 | R32021  | ELECTRICAL MACHINE DESIGN           | 11       | 29       | 4       |
| 12W61A0213 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 26       | 4       |
| 12W61A0213 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 13       | 36       | 4       |
| 12W61A0213 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 10       | 7        | 0       |
| 12W61A0213 | R32025  | POWER SEMICONDUCTOR DRIVES          | 11       | 19       | 0       |
| 12W61A0213 | R32026  | MANAGEMENT SCIENCE                  | 12       | 45       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0213 | R32027  | POWER ELECTRONICS LAB               | 22       | 29       | 2       |
| 12W61A0213 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 42       | 2       |
| 12W61A0214 | R32021  | ELECTRICAL MACHINE DESIGN           | 11       | 13       | 0       |
| 12W61A0214 | R32022  | POWER SYSTEM ANALYSIS               | 12       | 28       | 4       |
| 12W61A0214 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 14       | 26       | 4       |
| 12W61A0214 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 13       | 7        | 0       |
| 12W61A0214 | R32025  | POWER SEMICONDUCTOR DRIVES          | 17       | 33       | 4       |
| 12W61A0214 | R32026  | MANAGEMENT SCIENCE                  | 14       | 26       | 4       |
| 12W61A0214 | R32027  | POWER ELECTRONICS LAB               | 21       | 33       | 2       |
| 12W61A0214 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 21       | 43       | 2       |
| 12W61A0215 | R32021  | ELECTRICAL MACHINE DESIGN           | 8        | 24       | 0       |
| 12W61A0215 | R32022  | POWER SYSTEM ANALYSIS               | 9        | 31       | 4       |
| 12W61A0215 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 30       | 4       |
| 12W61A0215 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 11       | 29       | 4       |
| 12W61A0215 | R32025  | POWER SEMICONDUCTOR DRIVES          | 13       | 18       | 0       |
| 12W61A0215 | R32026  | MANAGEMENT SCIENCE                  | 12       | 31       | 4       |
| 12W61A0215 | R32027  | POWER ELECTRONICS LAB               | 21       | 43       | 2       |
| 12W61A0215 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 21       | 43       | 2       |
| 12W61A0216 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 45       | 4       |
| 12W61A0216 | R32022  | POWER SYSTEM ANALYSIS               | 14       | 28       | 4       |
| 12W61A0216 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 47       | 4       |
| 12W61A0216 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 48       | 4       |
| 12W61A0216 | R32025  | POWER SEMICONDUCTOR DRIVES          | 12       | 3        | 0       |
| 12W61A0216 | R32026  | MANAGEMENT SCIENCE                  | 13       | 37       | 4       |
| 12W61A0216 | R32027  | POWER ELECTRONICS LAB               | 23       | 41       | 2       |
| 12W61A0216 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 46       | 2       |
| 12W61A0217 | R32021  | ELECTRICAL MACHINE DESIGN           | 18       | 35       | 4       |
| 12W61A0217 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 33       | 4       |
| 12W61A0217 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 37       | 4       |
| 12W61A0217 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 13       | 34       | 4       |
| 12W61A0217 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 28       | 4       |
| 12W61A0217 | R32026  | MANAGEMENT SCIENCE                  | 15       | 53       | 4       |
| 12W61A0217 | R32027  | POWER ELECTRONICS LAB               | 21       | 36       | 2       |
| 12W61A0217 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 45       | 2       |
| 12W61A0218 | R32021  | ELECTRICAL MACHINE DESIGN           | 18       | 26       | 4       |
| 12W61A0218 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 32       | 4       |
| 12W61A0218 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 19       | 41       | 4       |
| 12W61A0218 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 13       | 11       | 0       |
| 12W61A0218 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 26       | 4       |
| 12W61A0218 | R32026  | MANAGEMENT SCIENCE                  | 5        | 27       | 0       |
| 12W61A0218 | R32027  | POWER ELECTRONICS LAB               | 22       | 32       | 2       |
| 12W61A0218 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 44       | 2       |
| 12W61A0219 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 29       | 4       |
| 12W61A0219 | R32022  | POWER SYSTEM ANALYSIS               | 21       | 29       | 4       |
| 12W61A0219 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 32       | 4       |
| 12W61A0219 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 13       | 73       | 4       |
| 12W61A0219 | R32025  | POWER SEMICONDUCTOR DRIVES          | 18       | 31       | 4       |
| 12W61A0219 | R32026  | MANAGEMENT SCIENCE                  | 16       | 36       | 4       |
| 12W61A0219 | R32027  | POWER ELECTRONICS LAB               | 21       | 37       | 2       |
| 12W61A0219 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 45       | 2       |
| 12W61A0220 | R32021  | ELECTRICAL MACHINE DESIGN           | 12       | 32       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0220 | R32022  | POWER SYSTEM ANALYSIS               | 14       | 36       | 4       |
| 12W61A0220 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 17       | 0       |
| 12W61A0220 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 10       | 47       | 4       |
| 12W61A0220 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 1        | 0       |
| 12W61A0220 | R32026  | MANAGEMENT SCIENCE                  | 16       | 37       | 4       |
| 12W61A0220 | R32027  | POWER ELECTRONICS LAB               | 22       | 39       | 2       |
| 12W61A0220 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 44       | 2       |
| 12W61A0221 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 15       | 0       |
| 12W61A0221 | R32022  | POWER SYSTEM ANALYSIS               | 16       | 1        | 0       |
| 12W61A0221 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 50       | 4       |
| 12W61A0221 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 12       | 38       | 4       |
| 12W61A0221 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 26       | 4       |
| 12W61A0221 | R32026  | MANAGEMENT SCIENCE                  | 18       | 59       | 4       |
| 12W61A0221 | R32027  | POWER ELECTRONICS LAB               | 21       | 38       | 2       |
| 12W61A0221 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 43       | 2       |
| 12W61A0222 | R32021  | ELECTRICAL MACHINE DESIGN           | 15       | 14       | 0       |
| 12W61A0222 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 26       | 4       |
| 12W61A0222 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 17       | 34       | 4       |
| 12W61A0222 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 14       | 0       |
| 12W61A0222 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 29       | 4       |
| 12W61A0222 | R32026  | MANAGEMENT SCIENCE                  | 15       | 36       | 4       |
| 12W61A0222 | R32027  | POWER ELECTRONICS LAB               | 21       | 37       | 2       |
| 12W61A0222 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 42       | 2       |
| 12W61A0223 | R32021  | ELECTRICAL MACHINE DESIGN           | 9        | 17       | 0       |
| 12W61A0223 | R32022  | POWER SYSTEM ANALYSIS               | 10       | -1       | 0       |
| 12W61A0223 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 15       | 0       |
| 12W61A0223 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 7        | 16       | 0       |
| 12W61A0223 | R32025  | POWER SEMICONDUCTOR DRIVES          | 12       | 20       | 0       |
| 12W61A0223 | R32026  | MANAGEMENT SCIENCE                  | 5        | 9        | 0       |
| 12W61A0223 | R32027  | POWER ELECTRONICS LAB               | 12       | -1       | 0       |
| 12W61A0223 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 16       | -1       | 0       |
| 12W61A0224 | R32021  | ELECTRICAL MACHINE DESIGN           | 23       | 26       | 4       |
| 12W61A0224 | R32022  | POWER SYSTEM ANALYSIS               | 22       | 7        | 0       |
| 12W61A0224 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 20       | 0       |
| 12W61A0224 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 18       | 35       | 4       |
| 12W61A0224 | R32025  | POWER SEMICONDUCTOR DRIVES          | 18       | 7        | 0       |
| 12W61A0224 | R32026  | MANAGEMENT SCIENCE                  | 18       | 26       | 4       |
| 12W61A0224 | R32027  | POWER ELECTRONICS LAB               | 24       | 42       | 2       |
| 12W61A0224 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 47       | 2       |
| 12W61A0225 | R32021  | ELECTRICAL MACHINE DESIGN           | 8        | 11       | 0       |
| 12W61A0225 | R32022  | POWER SYSTEM ANALYSIS               | 9        | 6        | 0       |
| 12W61A0225 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 27       | 4       |
| 12W61A0225 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 8        | 19       | 0       |
| 12W61A0225 | R32025  | POWER SEMICONDUCTOR DRIVES          | 8        | -1       | 0       |
| 12W61A0225 | R32026  | MANAGEMENT SCIENCE                  | 10       | 21       | 0       |
| 12W61A0225 | R32027  | POWER ELECTRONICS LAB               | 22       | 38       | 2       |
| 12W61A0225 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 21       | 42       | 2       |
| 12W61A0226 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 26       | 4       |
| 12W61A0226 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 27       | 4       |
| 12W61A0226 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 51       | 4       |
| 12W61A0226 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 16       | 18       | 0       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0226 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 42       | 4       |
| 12W61A0226 | R32026  | MANAGEMENT SCIENCE                  | 16       | 26       | 4       |
| 12W61A0226 | R32027  | POWER ELECTRONICS LAB               | 23       | 37       | 2       |
| 12W61A0226 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 41       | 2       |
| 12W61A0227 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 35       | 4       |
| 12W61A0227 | R32022  | POWER SYSTEM ANALYSIS               | 21       | 41       | 4       |
| 12W61A0227 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 17       | 31       | 4       |
| 12W61A0227 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 53       | 4       |
| 12W61A0227 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 16       | 0       |
| 12W61A0227 | R32026  | MANAGEMENT SCIENCE                  | 13       | 43       | 4       |
| 12W61A0227 | R32027  | POWER ELECTRONICS LAB               | 24       | 40       | 2       |
| 12W61A0227 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 47       | 2       |
| 12W61A0228 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 26       | 4       |
| 12W61A0228 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 8        | 0       |
| 12W61A0228 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 32       | 4       |
| 12W61A0228 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 11       | 29       | 4       |
| 12W61A0228 | R32025  | POWER SEMICONDUCTOR DRIVES          | 15       | 7        | 0       |
| 12W61A0228 | R32026  | MANAGEMENT SCIENCE                  | 14       | 27       | 4       |
| 12W61A0228 | R32027  | POWER ELECTRONICS LAB               | 21       | 42       | 2       |
| 12W61A0228 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 43       | 2       |
| 12W61A0229 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 35       | 4       |
| 12W61A0229 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 33       | 4       |
| 12W61A0229 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 37       | 4       |
| 12W61A0229 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 9        | 34       | 4       |
| 12W61A0229 | R32025  | POWER SEMICONDUCTOR DRIVES          | 14       | 28       | 4       |
| 12W61A0229 | R32026  | MANAGEMENT SCIENCE                  | 12       | 35       | 4       |
| 12W61A0229 | R32027  | POWER ELECTRONICS LAB               | 22       | 42       | 2       |
| 12W61A0229 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 46       | 2       |
| 12W61A0230 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 27       | 4       |
| 12W61A0230 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 54       | 4       |
| 12W61A0230 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 59       | 4       |
| 12W61A0230 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 18       | 34       | 4       |
| 12W61A0230 | R32025  | POWER SEMICONDUCTOR DRIVES          | 21       | 42       | 4       |
| 12W61A0230 | R32026  | MANAGEMENT SCIENCE                  | 22       | 30       | 4       |
| 12W61A0230 | R32027  | POWER ELECTRONICS LAB               | 24       | 44       | 2       |
| 12W61A0230 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 47       | 2       |
| 12W61A0232 | R32021  | ELECTRICAL MACHINE DESIGN           | 24       | 14       | 0       |
| 12W61A0232 | R32022  | POWER SYSTEM ANALYSIS               | 23       | 26       | 4       |
| 12W61A0232 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 19       | 26       | 4       |
| 12W61A0232 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 17       | 14       | 0       |
| 12W61A0232 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 27       | 4       |
| 12W61A0232 | R32026  | MANAGEMENT SCIENCE                  | 19       | 36       | 4       |
| 12W61A0232 | R32027  | POWER ELECTRONICS LAB               | 22       | 43       | 2       |
| 12W61A0232 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 44       | 2       |
| 12W61A0233 | R32021  | ELECTRICAL MACHINE DESIGN           | 25       | 33       | 4       |
| 12W61A0233 | R32022  | POWER SYSTEM ANALYSIS               | 25       | 42       | 4       |
| 12W61A0233 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 25       | 52       | 4       |
| 12W61A0233 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 24       | 57       | 4       |
| 12W61A0233 | R32025  | POWER SEMICONDUCTOR DRIVES          | 24       | 27       | 4       |
| 12W61A0233 | R32026  | MANAGEMENT SCIENCE                  | 22       | 34       | 4       |
| 12W61A0233 | R32027  | POWER ELECTRONICS LAB               | 23       | 47       | 2       |



| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0233 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 50       | 2       |
| 12W61A0234 | R32021  | ELECTRICAL MACHINE DESIGN           | 0        | 10       | 0       |
| 12W61A0234 | R32022  | POWER SYSTEM ANALYSIS               | 6        | 0        | 0       |
| 12W61A0234 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 9        | 8        | 0       |
| 12W61A0234 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 10       | 3        | 0       |
| 12W61A0234 | R32025  | POWER SEMICONDUCTOR DRIVES          | 9        | -1       | 0       |
| 12W61A0234 | R32026  | MANAGEMENT SCIENCE                  | 14       | -1       | 0       |
| 12W61A0234 | R32027  | POWER ELECTRONICS LAB               | 20       | -1       | 0       |
| 12W61A0234 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 14       | -1       | 0       |
| 12W61A0235 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 2        | 0       |
| 12W61A0235 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 14       | 0       |
| 12W61A0235 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 17       | 47       | 4       |
| 12W61A0235 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 15       | 0       |
| 12W61A0235 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 13       | 0       |
| 12W61A0235 | R32026  | MANAGEMENT SCIENCE                  | 17       | 28       | 4       |
| 12W61A0235 | R32027  | POWER ELECTRONICS LAB               | 22       | 37       | 2       |
| 12W61A0235 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 44       | 2       |
| 12W61A0236 | R32021  | ELECTRICAL MACHINE DESIGN           | 16       | 29       | 4       |
| 12W61A0236 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 28       | 4       |
| 12W61A0236 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 26       | 4       |
| 12W61A0236 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 12       | 20       | 0       |
| 12W61A0236 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 30       | 4       |
| 12W61A0236 | R32026  | MANAGEMENT SCIENCE                  | 19       | 40       | 4       |
| 12W61A0236 | R32027  | POWER ELECTRONICS LAB               | 23       | 42       | 2       |
| 12W61A0236 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 45       | 2       |
| 12W61A0237 | R32021  | ELECTRICAL MACHINE DESIGN           | 23       | 44       | 4       |
| 12W61A0237 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 33       | 4       |
| 12W61A0237 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 34       | 4       |
| 12W61A0237 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 10       | 46       | 4       |
| 12W61A0237 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 16       | 0       |
| 12W61A0237 | R32026  | MANAGEMENT SCIENCE                  | 15       | 40       | 4       |
| 12W61A0237 | R32027  | POWER ELECTRONICS LAB               | 22       | 45       | 2       |
| 12W61A0237 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 43       | 2       |
| 12W61A0238 | R32021  | ELECTRICAL MACHINE DESIGN           | 15       | 42       | 4       |
| 12W61A0238 | R32022  | POWER SYSTEM ANALYSIS               | 13       | 12       | 0       |
| 12W61A0238 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 13       | 27       | 4       |
| 12W61A0238 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 11       | 34       | 4       |
| 12W61A0238 | R32025  | POWER SEMICONDUCTOR DRIVES          | 18       | 26       | 4       |
| 12W61A0238 | R32026  | MANAGEMENT SCIENCE                  | 13       | 57       | 4       |
| 12W61A0238 | R32027  | POWER ELECTRONICS LAB               | 22       | 41       | 2       |
| 12W61A0238 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 43       | 2       |
| 12W61A0239 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 35       | 4       |
| 12W61A0239 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 40       | 4       |
| 12W61A0239 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 44       | 4       |
| 12W61A0239 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 27       | 4       |
| 12W61A0239 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 29       | 4       |
| 12W61A0239 | R32026  | MANAGEMENT SCIENCE                  | 17       | 26       | 4       |
| 12W61A0239 | R32027  | POWER ELECTRONICS LAB               | 20       | 45       | 2       |
| 12W61A0239 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 45       | 2       |
| 12W61A0240 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 29       | 4       |
| 12W61A0240 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 12       | 0       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0240 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 13       | 2        | 0       |
| 12W61A0240 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 13       | 12       | 0       |
| 12W61A0240 | R32025  | POWER SEMICONDUCTOR DRIVES          | 18       | 11       | 0       |
| 12W61A0240 | R32026  | MANAGEMENT SCIENCE                  | 20       | 42       | 4       |
| 12W61A0240 | R32027  | POWER ELECTRONICS LAB               | 22       | 40       | 2       |
| 12W61A0240 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 43       | 2       |
| 12W61A0241 | R32021  | ELECTRICAL MACHINE DESIGN           | 14       | 29       | 4       |
| 12W61A0241 | R32022  | POWER SYSTEM ANALYSIS               | 12       | 18       | 0       |
| 12W61A0241 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 13       | 34       | 4       |
| 12W61A0241 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 10       | 41       | 4       |
| 12W61A0241 | R32025  | POWER SEMICONDUCTOR DRIVES          | 18       | 4        | 0       |
| 12W61A0241 | R32026  | MANAGEMENT SCIENCE                  | 16       | 31       | 4       |
| 12W61A0241 | R32027  | POWER ELECTRONICS LAB               | 21       | 39       | 2       |
| 12W61A0241 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 42       | 2       |
| 12W61A0243 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 35       | 4       |
| 12W61A0243 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 26       | 4       |
| 12W61A0243 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 27       | 4       |
| 12W61A0243 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 20       | 26       | 4       |
| 12W61A0243 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 26       | 4       |
| 12W61A0243 | R32026  | MANAGEMENT SCIENCE                  | 18       | 60       | 4       |
| 12W61A0243 | R32027  | POWER ELECTRONICS LAB               | 23       | 44       | 2       |
| 12W61A0243 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 47       | 2       |
| 12W61A0244 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 32       | 4       |
| 12W61A0244 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 33       | 4       |
| 12W61A0244 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 48       | 4       |
| 12W61A0244 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 18       | 27       | 4       |
| 12W61A0244 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 39       | 4       |
| 12W61A0244 | R32026  | MANAGEMENT SCIENCE                  | 22       | 31       | 4       |
| 12W61A0244 | R32027  | POWER ELECTRONICS LAB               | 23       | 41       | 2       |
| 12W61A0244 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 46       | 2       |
| 12W61A0245 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 19       | 0       |
| 12W61A0245 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 31       | 4       |
| 12W61A0245 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 3        | 0       |
| 12W61A0245 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 33       | 4       |
| 12W61A0245 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 14       | 0       |
| 12W61A0245 | R32026  | MANAGEMENT SCIENCE                  | 23       | 38       | 4       |
| 12W61A0245 | R32027  | POWER ELECTRONICS LAB               | 22       | 42       | 2       |
| 12W61A0245 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 44       | 2       |
| 12W61A0246 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 26       | 4       |
| 12W61A0246 | R32022  | POWER SYSTEM ANALYSIS               | 14       | 26       | 4       |
| 12W61A0246 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 14       | 26       | 4       |
| 12W61A0246 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 8        | 32       | 4       |
| 12W61A0246 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 0        | 0       |
| 12W61A0246 | R32026  | MANAGEMENT SCIENCE                  | 13       | 15       | 0       |
| 12W61A0246 | R32027  | POWER ELECTRONICS LAB               | 21       | 43       | 2       |
| 12W61A0246 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 43       | 2       |
| 12W61A0247 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 41       | 4       |
| 12W61A0247 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 13       | 0       |
| 12W61A0247 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 45       | 4       |
| 12W61A0247 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 34       | 4       |
| 12W61A0247 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 26       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0247 | R32026  | MANAGEMENT SCIENCE                  | 22       | 51       | 4       |
| 12W61A0247 | R32027  | POWER ELECTRONICS LAB               | 20       | 41       | 2       |
| 12W61A0247 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 45       | 2       |
| 12W61A0248 | R32021  | ELECTRICAL MACHINE DESIGN           | 15       | 10       | 0       |
| 12W61A0248 | R32022  | POWER SYSTEM ANALYSIS               | 11       | 20       | 0       |
| 12W61A0248 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 31       | 4       |
| 12W61A0248 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 11       | 6        | 0       |
| 12W61A0248 | R32025  | POWER SEMICONDUCTOR DRIVES          | 13       | 15       | 0       |
| 12W61A0248 | R32026  | MANAGEMENT SCIENCE                  | 10       | 18       | 0       |
| 12W61A0248 | R32027  | POWER ELECTRONICS LAB               | 21       | -1       | 0       |
| 12W61A0248 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | -1       | 0       |
| 12W61A0249 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 29       | 4       |
| 12W61A0249 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 28       | 4       |
| 12W61A0249 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 16       | 0       |
| 12W61A0249 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 13       | 68       | 4       |
| 12W61A0249 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 34       | 4       |
| 12W61A0249 | R32026  | MANAGEMENT SCIENCE                  | 16       | 42       | 4       |
| 12W61A0249 | R32027  | POWER ELECTRONICS LAB               | 22       | 40       | 2       |
| 12W61A0249 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 43       | 2       |
| 12W61A0250 | R32021  | ELECTRICAL MACHINE DESIGN           | 18       | 26       | 4       |
| 12W61A0250 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 13       | 0       |
| 12W61A0250 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 19       | 34       | 4       |
| 12W61A0250 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 38       | 4       |
| 12W61A0250 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 2        | 0       |
| 12W61A0250 | R32026  | MANAGEMENT SCIENCE                  | 18       | 31       | 4       |
| 12W61A0250 | R32027  | POWER ELECTRONICS LAB               | 22       | 42       | 2       |
| 12W61A0250 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 45       | 2       |
| 12W61A0251 | R32021  | ELECTRICAL MACHINE DESIGN           | 15       | 33       | 4       |
| 12W61A0251 | R32022  | POWER SYSTEM ANALYSIS               | 14       | 13       | 0       |
| 12W61A0251 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 14       | 26       | 4       |
| 12W61A0251 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 7        | 8        | 0       |
| 12W61A0251 | R32025  | POWER SEMICONDUCTOR DRIVES          | 17       | 10       | 0       |
| 12W61A0251 | R32026  | MANAGEMENT SCIENCE                  | 12       | 40       | 4       |
| 12W61A0251 | R32027  | POWER ELECTRONICS LAB               | 22       | 39       | 2       |
| 12W61A0251 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 42       | 2       |
| 12W61A0252 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 32       | 4       |
| 12W61A0252 | R32022  | POWER SYSTEM ANALYSIS               | 22       | 32       | 4       |
| 12W61A0252 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 53       | 4       |
| 12W61A0252 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 19       | 30       | 4       |
| 12W61A0252 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 43       | 4       |
| 12W61A0252 | R32026  | MANAGEMENT SCIENCE                  | 19       | 32       | 4       |
| 12W61A0252 | R32027  | POWER ELECTRONICS LAB               | 21       | 43       | 2       |
| 12W61A0252 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 46       | 2       |
| 12W61A0253 | R32021  | ELECTRICAL MACHINE DESIGN           | 23       | 32       | 4       |
| 12W61A0253 | R32022  | POWER SYSTEM ANALYSIS               | 21       | 27       | 4       |
| 12W61A0253 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 19       | 31       | 4       |
| 12W61A0253 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 19       | 37       | 4       |
| 12W61A0253 | R32025  | POWER SEMICONDUCTOR DRIVES          | 25       | 37       | 4       |
| 12W61A0253 | R32026  | MANAGEMENT SCIENCE                  | 19       | 49       | 4       |
| 12W61A0253 | R32027  | POWER ELECTRONICS LAB               | 23       | 44       | 2       |
| 12W61A0253 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 45       | 2       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0254 | R32021  | ELECTRICAL MACHINE DESIGN           | 15       | 26       | 4       |
| 12W61A0254 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 26       | 4       |
| 12W61A0254 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 16       | 0       |
| 12W61A0254 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 9        | 26       | 0       |
| 12W61A0254 | R32025  | POWER SEMICONDUCTOR DRIVES          | 15       | 1        | 0       |
| 12W61A0254 | R32026  | MANAGEMENT SCIENCE                  | 16       | 27       | 4       |
| 12W61A0254 | R32027  | POWER ELECTRONICS LAB               | 22       | 41       | 2       |
| 12W61A0254 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 43       | 2       |
| 12W61A0255 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 30       | 4       |
| 12W61A0255 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 10       | 0       |
| 12W61A0255 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 47       | 4       |
| 12W61A0255 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 33       | 4       |
| 12W61A0255 | R32025  | POWER SEMICONDUCTOR DRIVES          | 18       | 26       | 4       |
| 12W61A0255 | R32026  | MANAGEMENT SCIENCE                  | 22       | 56       | 4       |
| 12W61A0255 | R32027  | POWER ELECTRONICS LAB               | 21       | 42       | 2       |
| 12W61A0255 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 44       | 2       |
| 12W61A0256 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 13       | 0       |
| 12W61A0256 | R32022  | POWER SYSTEM ANALYSIS               | 23       | 39       | 4       |
| 12W61A0256 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 49       | 4       |
| 12W61A0256 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 17       | 30       | 4       |
| 12W61A0256 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 37       | 4       |
| 12W61A0256 | R32026  | MANAGEMENT SCIENCE                  | 18       | 27       | 4       |
| 12W61A0256 | R32027  | POWER ELECTRONICS LAB               | 24       | 48       | 2       |
| 12W61A0256 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 50       | 2       |
| 12W61A0257 | R32021  | ELECTRICAL MACHINE DESIGN           | 18       | 31       | 4       |
| 12W61A0257 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 27       | 4       |
| 12W61A0257 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 54       | 4       |
| 12W61A0257 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 26       | 4       |
| 12W61A0257 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 18       | 0       |
| 12W61A0257 | R32026  | MANAGEMENT SCIENCE                  | 21       | 32       | 4       |
| 12W61A0257 | R32027  | POWER ELECTRONICS LAB               | 22       | 43       | 2       |
| 12W61A0257 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 47       | 2       |
| 12W61A0258 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 32       | 4       |
| 12W61A0258 | R32022  | POWER SYSTEM ANALYSIS               | 16       | 39       | 4       |
| 12W61A0258 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 33       | 4       |
| 12W61A0258 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 10       | 40       | 4       |
| 12W61A0258 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 5        | 0       |
| 12W61A0258 | R32026  | MANAGEMENT SCIENCE                  | 16       | 42       | 4       |
| 12W61A0258 | R32027  | POWER ELECTRONICS LAB               | 21       | 44       | 2       |
| 12W61A0258 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 43       | 2       |
| 12W61A0259 | R32021  | ELECTRICAL MACHINE DESIGN           | 16       | 35       | 4       |
| 12W61A0259 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 9        | 0       |
| 12W61A0259 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 17       | 26       | 4       |
| 12W61A0259 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 16       | 36       | 4       |
| 12W61A0259 | R32025  | POWER SEMICONDUCTOR DRIVES          | 17       | 26       | 4       |
| 12W61A0259 | R32026  | MANAGEMENT SCIENCE                  | 17       | 45       | 4       |
| 12W61A0259 | R32027  | POWER ELECTRONICS LAB               | 22       | 43       | 2       |
| 12W61A0259 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 47       | 2       |
| 12W61A0260 | R32021  | ELECTRICAL MACHINE DESIGN           | 12       | 28       | 4       |
| 12W61A0260 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 36       | 4       |
| 12W61A0260 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 32       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 12W61A0260 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 7        | 0       |
| 12W61A0260 | R32025  | POWER SEMICONDUCTOR DRIVES          | 9        | 43       | 4       |
| 12W61A0260 | R32026  | MANAGEMENT SCIENCE                  | 11       | 18       | 0       |
| 12W61A0260 | R32027  | POWER ELECTRONICS LAB               | 21       | 39       | 2       |
| 12W61A0260 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 21       | 40       | 2       |
| 12W61A0261 | R32021  | ELECTRICAL MACHINE DESIGN           | 4        | -1       | 0       |
| 12W61A0261 | R32022  | POWER SYSTEM ANALYSIS               | 6        | 0        | 0       |
| 12W61A0261 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 5        | 2        | 0       |
| 12W61A0261 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 0        | 0        | 0       |
| 12W61A0261 | R32025  | POWER SEMICONDUCTOR DRIVES          | 0        | 2        | 0       |
| 12W61A0261 | R32026  | MANAGEMENT SCIENCE                  | 0        | -1       | 0       |
| 12W61A0261 | R32027  | POWER ELECTRONICS LAB               | 20       | 1        | 0       |
| 12W61A0261 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 20       | 38       | 2       |
| 12W61A0263 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 41       | 4       |
| 12W61A0263 | R32022  | POWER SYSTEM ANALYSIS               | 22       | 35       | 4       |
| 12W61A0263 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 43       | 4       |
| 12W61A0263 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 52       | 4       |
| 12W61A0263 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 26       | 4       |
| 12W61A0263 | R32026  | MANAGEMENT SCIENCE                  | 18       | 44       | 4       |
| 12W61A0263 | R32027  | POWER ELECTRONICS LAB               | 23       | 44       | 2       |
| 12W61A0263 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 48       | 2       |
| 12W61A0264 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 29       | 4       |
| 12W61A0264 | R32022  | POWER SYSTEM ANALYSIS               | 21       | 14       | 0       |
| 12W61A0264 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 26       | 4       |
| 12W61A0264 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 18       | 33       | 4       |
| 12W61A0264 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 27       | 4       |
| 12W61A0264 | R32026  | MANAGEMENT SCIENCE                  | 16       | 48       | 4       |
| 12W61A0264 | R32027  | POWER ELECTRONICS LAB               | 24       | 42       | 2       |
| 12W61A0264 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 47       | 2       |
| 12W61A0265 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 38       | 4       |
| 12W61A0265 | R32022  | POWER SYSTEM ANALYSIS               | 10       | 36       | 4       |
| 12W61A0265 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 10       | 47       | 4       |
| 12W61A0265 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 13       | 27       | 4       |
| 12W61A0265 | R32025  | POWER SEMICONDUCTOR DRIVES          | 14       | 35       | 4       |
| 12W61A0265 | R32026  | MANAGEMENT SCIENCE                  | 22       | 31       | 4       |
| 12W61A0265 | R32027  | POWER ELECTRONICS LAB               | 21       | 38       | 2       |
| 12W61A0265 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 20       | 40       | 2       |
| 12W61A0301 | R32031  | METROLOGY                           | 19       | 64       | 4       |
| 12W61A0301 | R32032  | ROBOTICS                            | 20       | 44       | 4       |
| 12W61A0301 | R32033  | HEAT TRANSFER                       | 16       | 26       | 4       |
| 12W61A0301 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS   | 22       | 36       | 4       |
| 12W61A0301 | R32035  | DESIGN OF MACHINE MEMBERS_II        | 14       | 44       | 4       |
| 12W61A0301 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT       | 16       | 35       | 4       |
| 12W61A0301 | R32037  | METROLOGY & INSTRUMENTATION LAB     | 20       | 40       | 2       |
| 12W61A0301 | R32038  | HEAT TRANSFER LAB                   | 16       | 30       | 2       |
| 12W61A0302 | R32031  | METROLOGY                           | 19       | 33       | 4       |
| 12W61A0302 | R32032  | ROBOTICS                            | 21       | 13       | 0       |
| 12W61A0302 | R32033  | HEAT TRANSFER                       | 18       | 41       | 4       |
| 12W61A0302 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS   | 14       | 30       | 4       |
| 12W61A0302 | R32035  | DESIGN OF MACHINE MEMBERS_II        | 18       | 39       | 4       |
| 12W61A0302 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT       | 20       | 45       | 4       |

| Htno       | Subcode | Subname                           | Internal | External | credits |
|------------|---------|-----------------------------------|----------|----------|---------|
| 12W61A0302 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 38       | 2       |
| 12W61A0302 | R32038  | HEAT TRANSFER LAB                 | 16       | 32       | 2       |
| 12W61A0303 | R32031  | METROLOGY                         | 20       | 41       | 4       |
| 12W61A0303 | R32032  | ROBOTICS                          | 22       | 32       | 4       |
| 12W61A0303 | R32033  | HEAT TRANSFER                     | 18       | 37       | 4       |
| 12W61A0303 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 22       | 26       | 4       |
| 12W61A0303 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 20       | 61       | 4       |
| 12W61A0303 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 18       | 50       | 4       |
| 12W61A0303 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 19       | 36       | 2       |
| 12W61A0303 | R32038  | HEAT TRANSFER LAB                 | 22       | 41       | 2       |
| 12W61A0305 | R32031  | METROLOGY                         | 19       | 40       | 4       |
| 12W61A0305 | R32032  | ROBOTICS                          | 22       | 48       | 4       |
| 12W61A0305 | R32033  | HEAT TRANSFER                     | 12       | 19       | 0       |
| 12W61A0305 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 20       | 16       | 0       |
| 12W61A0305 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 16       | 60       | 4       |
| 12W61A0305 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 15       | 54       | 4       |
| 12W61A0305 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 20       | 41       | 2       |
| 12W61A0305 | R32038  | HEAT TRANSFER LAB                 | 21       | 41       | 2       |
| 12W61A0306 | R32031  | METROLOGY                         | 10       | 64       | 4       |
| 12W61A0306 | R32032  | ROBOTICS                          | 19       | 31       | 4       |
| 12W61A0306 | R32033  | HEAT TRANSFER                     | 15       | 10       | 0       |
| 12W61A0306 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 17       | 27       | 4       |
| 12W61A0306 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 13       | 45       | 4       |
| 12W61A0306 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 7        | 36       | 4       |
| 12W61A0306 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 15       | 37       | 2       |
| 12W61A0306 | R32038  | HEAT TRANSFER LAB                 | 13       | 28       | 2       |
| 12W61A0307 | R32031  | METROLOGY                         | 21       | 46       | 4       |
| 12W61A0307 | R32032  | ROBOTICS                          | 24       | 11       | 0       |
| 12W61A0307 | R32033  | HEAT TRANSFER                     | 21       | 55       | 4       |
| 12W61A0307 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 22       | 57       | 4       |
| 12W61A0307 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 22       | 38       | 4       |
| 12W61A0307 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 21       | 39       | 4       |
| 12W61A0307 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 24       | 45       | 2       |
| 12W61A0307 | R32038  | HEAT TRANSFER LAB                 | 25       | 48       | 2       |
| 12W61A0308 | R32031  | METROLOGY                         | 14       | 37       | 4       |
| 12W61A0308 | R32032  | ROBOTICS                          | 19       | 38       | 4       |
| 12W61A0308 | R32033  | HEAT TRANSFER                     | 13       | 38       | 4       |
| 12W61A0308 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 19       | 27       | 4       |
| 12W61A0308 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 17       | 37       | 4       |
| 12W61A0308 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 16       | 40       | 4       |
| 12W61A0308 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 17       | 37       | 2       |
| 12W61A0308 | R32038  | HEAT TRANSFER LAB                 | 15       | 32       | 2       |
| 12W61A0309 | R32031  | METROLOGY                         | 8        | 32       | 4       |
| 12W61A0309 | R32032  | ROBOTICS                          | 7        | 21       | 0       |
| 12W61A0309 | R32033  | HEAT TRANSFER                     | 7        | 9        | 0       |
| 12W61A0309 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 7        | 10       | 0       |
| 12W61A0309 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 6        | 35       | 4       |
| 12W61A0309 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 10       | 52       | 4       |
| 12W61A0309 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 17       | 36       | 2       |
| 12W61A0309 | R32038  | HEAT TRANSFER LAB                 | 14       | -1       | 0       |
| 12W61A0310 | R32031  | METROLOGY                         | 21       | 65       | 4       |

| Htno       | Subcode | Subname                           | Internal | External | credits |
|------------|---------|-----------------------------------|----------|----------|---------|
| 12W61A0310 | R32032  | ROBOTICS                          | 19       | 49       | 4       |
| 12W61A0310 | R32033  | HEAT TRANSFER                     | 21       | 32       | 4       |
| 12W61A0310 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 21       | 26       | 4       |
| 12W61A0310 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 21       | 47       | 4       |
| 12W61A0310 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 20       | 39       | 4       |
| 12W61A0310 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 24       | 45       | 2       |
| 12W61A0310 | R32038  | HEAT TRANSFER LAB                 | 23       | 39       | 2       |
| 12W61A0311 | R32031  | METROLOGY                         | 20       | 42       | 4       |
| 12W61A0311 | R32032  | ROBOTICS                          | 21       | 12       | 0       |
| 12W61A0311 | R32033  | HEAT TRANSFER                     | 19       | 62       | 4       |
| 12W61A0311 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 40       | 4       |
| 12W61A0311 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 17       | 47       | 4       |
| 12W61A0311 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 19       | 39       | 4       |
| 12W61A0311 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 23       | 43       | 2       |
| 12W61A0311 | R32038  | HEAT TRANSFER LAB                 | 23       | 46       | 2       |
| 12W61A0312 | R32031  | METROLOGY                         | 18       | 39       | 4       |
| 12W61A0312 | R32032  | ROBOTICS                          | 18       | 32       | 4       |
| 12W61A0312 | R32033  | HEAT TRANSFER                     | 18       | 40       | 4       |
| 12W61A0312 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 20       | 26       | 4       |
| 12W61A0312 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 21       | 51       | 4       |
| 12W61A0312 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 18       | 30       | 4       |
| 12W61A0312 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 17       | 36       | 2       |
| 12W61A0312 | R32038  | HEAT TRANSFER LAB                 | 21       | 40       | 2       |
| 12W61A0313 | R32031  | METROLOGY                         | 4        | 26       | 0       |
| 12W61A0313 | R32032  | ROBOTICS                          | 7        | 17       | 0       |
| 12W61A0313 | R32033  | HEAT TRANSFER                     | 6        | 6        | 0       |
| 12W61A0313 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 6        | 14       | 0       |
| 12W61A0313 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 4        | 28       | 0       |
| 12W61A0313 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 2        | 19       | 0       |
| 12W61A0313 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 2        | -1       | 0       |
| 12W61A0313 | R32038  | HEAT TRANSFER LAB                 | 5        | -1       | 0       |
| 12W61A0314 | R32031  | METROLOGY                         | 17       | 54       | 4       |
| 12W61A0314 | R32032  | ROBOTICS                          | 23       | 46       | 4       |
| 12W61A0314 | R32033  | HEAT TRANSFER                     | 19       | 26       | 4       |
| 12W61A0314 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 21       | 29       | 4       |
| 12W61A0314 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 16       | 48       | 4       |
| 12W61A0314 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 19       | 35       | 4       |
| 12W61A0314 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 21       | 18       | 2       |
| 12W61A0314 | R32038  | HEAT TRANSFER LAB                 | 22       | 34       | 2       |
| 12W61A0315 | R32031  | METROLOGY                         | 12       | 3        | 0       |
| 12W61A0315 | R32032  | ROBOTICS                          | 5        | -1       | 0       |
| 12W61A0315 | R32033  | HEAT TRANSFER                     | 10       | 8        | 0       |
| 12W61A0315 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 19       | -1       | 0       |
| 12W61A0315 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 6        | -1       | 0       |
| 12W61A0315 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 17       | 37       | 2       |
| 12W61A0315 | R32038  | HEAT TRANSFER LAB                 | 12       | 26       | 2       |
| 12W61A0316 | R32031  | METROLOGY                         | 20       | 31       | 4       |
| 12W61A0316 | R32032  | ROBOTICS                          | 20       | 39       | 4       |
| 12W61A0316 | R32033  | HEAT TRANSFER                     | 19       | 42       | 4       |
| 12W61A0316 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 24       | 31       | 4       |
| 12W61A0316 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 21       | 40       | 4       |

| Htno       | Subcode | Subname                           | Internal | External | credits |
|------------|---------|-----------------------------------|----------|----------|---------|
| 12W61A0316 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 22       | 46       | 4       |
| 12W61A0316 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 36       | 2       |
| 12W61A0316 | R32038  | HEAT TRANSFER LAB                 | 23       | 40       | 2       |
| 12W61A0317 | R32031  | METROLOGY                         | 23       | 53       | 4       |
| 12W61A0317 | R32032  | ROBOTICS                          | 25       | 66       | 4       |
| 12W61A0317 | R32033  | HEAT TRANSFER                     | 21       | 41       | 4       |
| 12W61A0317 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 22       | 51       | 4       |
| 12W61A0317 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 20       | 50       | 4       |
| 12W61A0317 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 22       | 55       | 4       |
| 12W61A0317 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 21       | 40       | 2       |
| 12W61A0317 | R32038  | HEAT TRANSFER LAB                 | 22       | 46       | 2       |
| 12W61A0318 | R32031  | METROLOGY                         | 19       | 64       | 4       |
| 12W61A0318 | R32032  | ROBOTICS                          | 16       | 59       | 4       |
| 12W61A0318 | R32033  | HEAT TRANSFER                     | 18       | 36       | 4       |
| 12W61A0318 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 27       | 4       |
| 12W61A0318 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 15       | 47       | 4       |
| 12W61A0318 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 19       | 26       | 4       |
| 12W61A0318 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 21       | 40       | 2       |
| 12W61A0318 | R32038  | HEAT TRANSFER LAB                 | 15       | 25       | 2       |
| 12W61A0320 | R32031  | METROLOGY                         | 18       | 50       | 4       |
| 12W61A0320 | R32032  | ROBOTICS                          | 20       | 26       | 4       |
| 12W61A0320 | R32033  | HEAT TRANSFER                     | 19       | 52       | 4       |
| 12W61A0320 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 50       | 4       |
| 12W61A0320 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 18       | 41       | 4       |
| 12W61A0320 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 17       | 43       | 4       |
| 12W61A0320 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 21       | 41       | 2       |
| 12W61A0320 | R32038  | HEAT TRANSFER LAB                 | 19       | 37       | 2       |
| 12W61A0321 | R32031  | METROLOGY                         | 18       | 58       | 4       |
| 12W61A0321 | R32032  | ROBOTICS                          | 24       | 33       | 4       |
| 12W61A0321 | R32033  | HEAT TRANSFER                     | 20       | 46       | 4       |
| 12W61A0321 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 27       | 4       |
| 12W61A0321 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 20       | 59       | 4       |
| 12W61A0321 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 23       | 46       | 4       |
| 12W61A0321 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 22       | 41       | 2       |
| 12W61A0321 | R32038  | HEAT TRANSFER LAB                 | 22       | 37       | 2       |
| 12W61A0322 | R32031  | METROLOGY                         | 20       | 43       | 4       |
| 12W61A0322 | R32032  | ROBOTICS                          | 21       | 61       | 4       |
| 12W61A0322 | R32033  | HEAT TRANSFER                     | 20       | 31       | 4       |
| 12W61A0322 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 24       | -1       | 0       |
| 12W61A0322 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 9        | -1       | 0       |
| 12W61A0322 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 16       | 4        | 0       |
| 12W61A0322 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 23       | 43       | 2       |
| 12W61A0322 | R32038  | HEAT TRANSFER LAB                 | 22       | 48       | 2       |
| 12W61A0323 | R32031  | METROLOGY                         | 23       | 56       | 4       |
| 12W61A0323 | R32032  | ROBOTICS                          | 24       | 38       | 4       |
| 12W61A0323 | R32033  | HEAT TRANSFER                     | 20       | 27       | 4       |
| 12W61A0323 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 25       | 35       | 4       |
| 12W61A0323 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 20       | 44       | 4       |
| 12W61A0323 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 19       | 32       | 4       |
| 12W61A0323 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 17       | 37       | 2       |
| 12W61A0323 | R32038  | HEAT TRANSFER LAB                 | 11       | 36       | 2       |



| Htno       | Subcode | Subname                           | Internal | External | credits |
|------------|---------|-----------------------------------|----------|----------|---------|
| 12W61A0324 | R32031  | METROLOGY                         | 20       | 43       | 4       |
| 12W61A0324 | R32032  | ROBOTICS                          | 25       | 36       | 4       |
| 12W61A0324 | R32033  | HEAT TRANSFER                     | 21       | 60       | 4       |
| 12W61A0324 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 25       | 53       | 4       |
| 12W61A0324 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 22       | 46       | 4       |
| 12W61A0324 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 22       | 42       | 4       |
| 12W61A0324 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 17       | 41       | 2       |
| 12W61A0324 | R32038  | HEAT TRANSFER LAB                 | 25       | 39       | 2       |
| 12W61A0325 | R32031  | METROLOGY                         | 22       | 55       | 4       |
| 12W61A0325 | R32032  | ROBOTICS                          | 24       | 35       | 4       |
| 12W61A0325 | R32033  | HEAT TRANSFER                     | 21       | 43       | 4       |
| 12W61A0325 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 24       | 33       | 4       |
| 12W61A0325 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 21       | 68       | 4       |
| 12W61A0325 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 19       | 42       | 4       |
| 12W61A0325 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 20       | 40       | 2       |
| 12W61A0325 | R32038  | HEAT TRANSFER LAB                 | 25       | 47       | 2       |
| 12W61A0327 | R32031  | METROLOGY                         | 9        | 16       | 0       |
| 12W61A0327 | R32032  | ROBOTICS                          | 13       | 45       | 4       |
| 12W61A0327 | R32033  | HEAT TRANSFER                     | 12       | 12       | 0       |
| 12W61A0327 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 19       | 18       | 0       |
| 12W61A0327 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 7        | 33       | 4       |
| 12W61A0327 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 7        | 41       | 4       |
| 12W61A0327 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 11       | 30       | 2       |
| 12W61A0327 | R32038  | HEAT TRANSFER LAB                 | 11       | 27       | 2       |
| 12W61A0329 | R32031  | METROLOGY                         | 14       | 43       | 4       |
| 12W61A0329 | R32032  | ROBOTICS                          | 17       | 17       | 0       |
| 12W61A0329 | R32033  | HEAT TRANSFER                     | 11       | 9        | 0       |
| 12W61A0329 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 18       | 17       | 0       |
| 12W61A0329 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 8        | 12       | 0       |
| 12W61A0329 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 12       | 29       | 4       |
| 12W61A0329 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 16       | 37       | 2       |
| 12W61A0329 | R32038  | HEAT TRANSFER LAB                 | 15       | 28       | 2       |
| 12W61A0330 | R32031  | METROLOGY                         | 15       | 16       | 0       |
| 12W61A0330 | R32032  | ROBOTICS                          | 22       | 11       | 0       |
| 12W61A0330 | R32033  | HEAT TRANSFER                     | 15       | 48       | 4       |
| 12W61A0330 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 20       | 32       | 4       |
| 12W61A0330 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 12       | 13       | 0       |
| 12W61A0330 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 10       | 34       | 4       |
| 12W61A0330 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 41       | 2       |
| 12W61A0330 | R32038  | HEAT TRANSFER LAB                 | 15       | 28       | 2       |
| 12W61A0331 | R32031  | METROLOGY                         | 18       | 40       | 4       |
| 12W61A0331 | R32032  | ROBOTICS                          | 17       | 33       | 4       |
| 12W61A0331 | R32033  | HEAT TRANSFER                     | 19       | 45       | 4       |
| 12W61A0331 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 22       | 27       | 4       |
| 12W61A0331 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 19       | 43       | 4       |
| 12W61A0331 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 15       | 37       | 4       |
| 12W61A0331 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 36       | 2       |
| 12W61A0331 | R32038  | HEAT TRANSFER LAB                 | 12       | 26       | 2       |
| 12W61A0332 | R32031  | METROLOGY                         | 16       | 26       | 4       |
| 12W61A0332 | R32032  | ROBOTICS                          | 21       | 68       | 4       |
| 12W61A0332 | R32033  | HEAT TRANSFER                     | 16       | 26       | 4       |

| Htno       | Subcode | Subname                           | Internal | External | credits |
|------------|---------|-----------------------------------|----------|----------|---------|
| 12W61A0332 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 21       | 18       | 0       |
| 12W61A0332 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 15       | 29       | 4       |
| 12W61A0332 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 17       | 42       | 4       |
| 12W61A0332 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 40       | 2       |
| 12W61A0332 | R32038  | HEAT TRANSFER LAB                 | 15       | 27       | 2       |
| 12W61A0333 | R32031  | METROLOGY                         | 17       | 37       | 4       |
| 12W61A0333 | R32032  | ROBOTICS                          | 20       | 43       | 4       |
| 12W61A0333 | R32033  | HEAT TRANSFER                     | 13       | 10       | 0       |
| 12W61A0333 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 22       | 29       | 4       |
| 12W61A0333 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 15       | 26       | 4       |
| 12W61A0333 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 17       | 31       | 4       |
| 12W61A0333 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 39       | 2       |
| 12W61A0333 | R32038  | HEAT TRANSFER LAB                 | 18       | 25       | 2       |
| 12W61A0334 | R32031  | METROLOGY                         | 18       | 29       | 4       |
| 12W61A0334 | R32032  | ROBOTICS                          | 20       | 56       | 4       |
| 12W61A0334 | R32033  | HEAT TRANSFER                     | 18       | 67       | 4       |
| 12W61A0334 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 22       | 46       | 4       |
| 12W61A0334 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 20       | 39       | 4       |
| 12W61A0334 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 22       | 32       | 4       |
| 12W61A0334 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 19       | 37       | 2       |
| 12W61A0334 | R32038  | HEAT TRANSFER LAB                 | 23       | 41       | 2       |
| 12W61A0335 | R32031  | METROLOGY                         | 15       | 16       | 0       |
| 12W61A0335 | R32032  | ROBOTICS                          | 18       | 26       | 4       |
| 12W61A0335 | R32033  | HEAT TRANSFER                     | 14       | 39       | 4       |
| 12W61A0335 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 27       | 4       |
| 12W61A0335 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 18       | 43       | 4       |
| 12W61A0335 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 16       | 34       | 4       |
| 12W61A0335 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 17       | 36       | 2       |
| 12W61A0335 | R32038  | HEAT TRANSFER LAB                 | 10       | 29       | 2       |
| 12W61A0337 | R32031  | METROLOGY                         | 16       | 26       | 4       |
| 12W61A0337 | R32032  | ROBOTICS                          | 18       | 42       | 4       |
| 12W61A0337 | R32033  | HEAT TRANSFER                     | 16       | 14       | 0       |
| 12W61A0337 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 17       | 13       | 0       |
| 12W61A0337 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 14       | 26       | 4       |
| 12W61A0337 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 18       | 27       | 4       |
| 12W61A0337 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 20       | 38       | 2       |
| 12W61A0337 | R32038  | HEAT TRANSFER LAB                 | 15       | 26       | 2       |
| 12W61A0338 | R32031  | METROLOGY                         | 16       | 53       | 4       |
| 12W61A0338 | R32032  | ROBOTICS                          | 22       | 39       | 4       |
| 12W61A0338 | R32033  | HEAT TRANSFER                     | 18       | 26       | 4       |
| 12W61A0338 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 17       | 28       | 4       |
| 12W61A0338 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 21       | 26       | 4       |
| 12W61A0338 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 17       | 30       | 4       |
| 12W61A0338 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 22       | 40       | 2       |
| 12W61A0338 | R32038  | HEAT TRANSFER LAB                 | 21       | 29       | 2       |
| 12W61A0339 | R32031  | METROLOGY                         | 16       | 26       | 4       |
| 12W61A0339 | R32032  | ROBOTICS                          | 19       | 9        | 0       |
| 12W61A0339 | R32033  | HEAT TRANSFER                     | 17       | 37       | 4       |
| 12W61A0339 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 22       | 38       | 4       |
| 12W61A0339 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 15       | 37       | 4       |
| 12W61A0339 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 16       | 42       | 4       |

| Htno       | Subcode | Subname                           | Internal | External | credits |
|------------|---------|-----------------------------------|----------|----------|---------|
| 12W61A0339 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 38       | 2       |
| 12W61A0339 | R32038  | HEAT TRANSFER LAB                 | 17       | 35       | 2       |
| 12W61A0340 | R32031  | METROLOGY                         | 20       | 15       | 0       |
| 12W61A0340 | R32032  | ROBOTICS                          | 24       | 34       | 4       |
| 12W61A0340 | R32033  | HEAT TRANSFER                     | 17       | 52       | 4       |
| 12W61A0340 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 17       | 27       | 4       |
| 12W61A0340 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 19       | 58       | 4       |
| 12W61A0340 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 20       | 39       | 4       |
| 12W61A0340 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 37       | 2       |
| 12W61A0340 | R32038  | HEAT TRANSFER LAB                 | 20       | 39       | 2       |
| 12W61A0341 | R32031  | METROLOGY                         | 16       | 30       | 4       |
| 12W61A0341 | R32032  | ROBOTICS                          | 19       | 72       | 4       |
| 12W61A0341 | R32033  | HEAT TRANSFER                     | 18       | 18       | 0       |
| 12W61A0341 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 21       | 30       | 4       |
| 12W61A0341 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 15       | 47       | 4       |
| 12W61A0341 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 20       | 53       | 4       |
| 12W61A0341 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 20       | 40       | 2       |
| 12W61A0341 | R32038  | HEAT TRANSFER LAB                 | 18       | 38       | 2       |
| 12W61A0342 | R32031  | METROLOGY                         | 22       | 60       | 4       |
| 12W61A0342 | R32032  | ROBOTICS                          | 25       | 42       | 4       |
| 12W61A0342 | R32033  | HEAT TRANSFER                     | 20       | 26       | 4       |
| 12W61A0342 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 41       | 4       |
| 12W61A0342 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 20       | 60       | 4       |
| 12W61A0342 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 19       | 35       | 4       |
| 12W61A0342 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 19       | 37       | 2       |
| 12W61A0342 | R32038  | HEAT TRANSFER LAB                 | 20       | 34       | 2       |
| 12W61A0343 | R32031  | METROLOGY                         | 18       | 42       | 4       |
| 12W61A0343 | R32032  | ROBOTICS                          | 20       | 14       | 0       |
| 12W61A0343 | R32033  | HEAT TRANSFER                     | 19       | 59       | 4       |
| 12W61A0343 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 19       | 34       | 4       |
| 12W61A0343 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 14       | 26       | 4       |
| 12W61A0343 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 20       | 37       | 4       |
| 12W61A0343 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 36       | 2       |
| 12W61A0343 | R32038  | HEAT TRANSFER LAB                 | 13       | 28       | 2       |
| 12W61A0344 | R32031  | METROLOGY                         | 20       | 39       | 4       |
| 12W61A0344 | R32032  | ROBOTICS                          | 23       | 33       | 4       |
| 12W61A0344 | R32033  | HEAT TRANSFER                     | 21       | 0        | 0       |
| 12W61A0344 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 27       | 4       |
| 12W61A0344 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 20       | 56       | 4       |
| 12W61A0344 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 18       | 43       | 4       |
| 12W61A0344 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 20       | 40       | 2       |
| 12W61A0344 | R32038  | HEAT TRANSFER LAB                 | 20       | 29       | 2       |
| 12W61A0345 | R32031  | METROLOGY                         | 18       | 26       | 4       |
| 12W61A0345 | R32032  | ROBOTICS                          | 19       | 50       | 4       |
| 12W61A0345 | R32033  | HEAT TRANSFER                     | 8        | 23       | 0       |
| 12W61A0345 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 20       | 0        | 0       |
| 12W61A0345 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 19       | 36       | 4       |
| 12W61A0345 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 15       | 37       | 4       |
| 12W61A0345 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 40       | 2       |
| 12W61A0345 | R32038  | HEAT TRANSFER LAB                 | 19       | 39       | 2       |
| 12W61A0346 | R32031  | METROLOGY                         | 17       | 60       | 4       |

| Htno       | Subcode | Subname                           | Internal | External | credits |
|------------|---------|-----------------------------------|----------|----------|---------|
| 12W61A0346 | R32032  | ROBOTICS                          | 23       | 46       | 4       |
| 12W61A0346 | R32033  | HEAT TRANSFER                     | 18       | 29       | 4       |
| 12W61A0346 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 20       | 32       | 4       |
| 12W61A0346 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 12       | 44       | 4       |
| 12W61A0346 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 17       | 31       | 4       |
| 12W61A0346 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 19       | 39       | 2       |
| 12W61A0346 | R32038  | HEAT TRANSFER LAB                 | 15       | 34       | 2       |
| 12W61A0347 | R32031  | METROLOGY                         | 19       | 29       | 4       |
| 12W61A0347 | R32032  | ROBOTICS                          | 21       | 26       | 4       |
| 12W61A0347 | R32033  | HEAT TRANSFER                     | 16       | 46       | 4       |
| 12W61A0347 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 21       | 46       | 4       |
| 12W61A0347 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 16       | 12       | 0       |
| 12W61A0347 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 18       | 38       | 4       |
| 12W61A0347 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 19       | 40       | 2       |
| 12W61A0347 | R32038  | HEAT TRANSFER LAB                 | 12       | 39       | 2       |
| 12W61A0348 | R32031  | METROLOGY                         | 20       | 59       | 4       |
| 12W61A0348 | R32032  | ROBOTICS                          | 23       | 38       | 4       |
| 12W61A0348 | R32033  | HEAT TRANSFER                     | 20       | 43       | 4       |
| 12W61A0348 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 24       | 47       | 4       |
| 12W61A0348 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 25       | 70       | 4       |
| 12W61A0348 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 22       | 50       | 4       |
| 12W61A0348 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 23       | 40       | 2       |
| 12W61A0348 | R32038  | HEAT TRANSFER LAB                 | 21       | 44       | 2       |
| 12W61A0349 | R32031  | METROLOGY                         | 21       | 29       | 4       |
| 12W61A0349 | R32032  | ROBOTICS                          | 24       | 64       | 4       |
| 12W61A0349 | R32033  | HEAT TRANSFER                     | 22       | 27       | 4       |
| 12W61A0349 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 32       | 4       |
| 12W61A0349 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 14       | 38       | 4       |
| 12W61A0349 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 14       | 43       | 4       |
| 12W61A0349 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 40       | 2       |
| 12W61A0349 | R32038  | HEAT TRANSFER LAB                 | 23       | 34       | 2       |
| 12W61A0350 | R32031  | METROLOGY                         | 17       | 51       | 4       |
| 12W61A0350 | R32032  | ROBOTICS                          | 20       | 37       | 4       |
| 12W61A0350 | R32033  | HEAT TRANSFER                     | 17       | 19       | 0       |
| 12W61A0350 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 21       | 28       | 4       |
| 12W61A0350 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 14       | 38       | 4       |
| 12W61A0350 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 17       | 29       | 4       |
| 12W61A0350 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 15       | 38       | 2       |
| 12W61A0350 | R32038  | HEAT TRANSFER LAB                 | 11       | 33       | 2       |
| 12W61A0351 | R32031  | METROLOGY                         | 21       | 29       | 4       |
| 12W61A0351 | R32032  | ROBOTICS                          | 23       | 44       | 4       |
| 12W61A0351 | R32033  | HEAT TRANSFER                     | 18       | 59       | 4       |
| 12W61A0351 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 22       | 48       | 4       |
| 12W61A0351 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 18       | 38       | 4       |
| 12W61A0351 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 20       | 43       | 4       |
| 12W61A0351 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 23       | 40       | 2       |
| 12W61A0351 | R32038  | HEAT TRANSFER LAB                 | 25       | 45       | 2       |
| 12W61A0352 | R32031  | METROLOGY                         | 23       | 53       | 4       |
| 12W61A0352 | R32032  | ROBOTICS                          | 22       | 27       | 4       |
| 12W61A0352 | R32033  | HEAT TRANSFER                     | 22       | 43       | 4       |
| 12W61A0352 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 24       | 48       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0352 | R32035  | DESIGN OF MACHINE MEMBERS_II             | 24       | 72       | 4       |
| 12W61A0352 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT            | 22       | 42       | 4       |
| 12W61A0352 | R32037  | METROLOGY & INSTRUMENTATION LAB          | 23       | 47       | 2       |
| 12W61A0352 | R32038  | HEAT TRANSFER LAB                        | 25       | 48       | 2       |
| 12W61A0355 | R32031  | METROLOGY                                | 23       | 28       | 4       |
| 12W61A0355 | R32032  | ROBOTICS                                 | 25       | 69       | 4       |
| 12W61A0355 | R32033  | HEAT TRANSFER                            | 22       | 27       | 4       |
| 12W61A0355 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS        | 24       | 30       | 4       |
| 12W61A0355 | R32035  | DESIGN OF MACHINE MEMBERS_II             | 15       | 37       | 4       |
| 12W61A0355 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT            | 22       | 45       | 4       |
| 12W61A0355 | R32037  | METROLOGY & INSTRUMENTATION LAB          | 23       | 45       | 2       |
| 12W61A0355 | R32038  | HEAT TRANSFER LAB                        | 17       | 40       | 2       |
| 12W61A0356 | R32031  | METROLOGY                                | 9        | 12       | 0       |
| 12W61A0356 | R32032  | ROBOTICS                                 | 9        | 31       | 4       |
| 12W61A0356 | R32033  | HEAT TRANSFER                            | 5        | 16       | 0       |
| 12W61A0356 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS        | 11       | 8        | 0       |
| 12W61A0356 | R32035  | DESIGN OF MACHINE MEMBERS_II             | 8        | 44       | 4       |
| 12W61A0356 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT            | 13       | 16       | 0       |
| 12W61A0356 | R32037  | METROLOGY & INSTRUMENTATION LAB          | 13       | 32       | 2       |
| 12W61A0356 | R32038  | HEAT TRANSFER LAB                        | 7        | -1       | 0       |
| 12W61A0357 | R32031  | METROLOGY                                | 16       | 26       | 4       |
| 12W61A0357 | R32032  | ROBOTICS                                 | 20       | 26       | 4       |
| 12W61A0357 | R32033  | HEAT TRANSFER                            | 15       | 40       | 4       |
| 12W61A0357 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS        | 21       | 35       | 4       |
| 12W61A0357 | R32035  | DESIGN OF MACHINE MEMBERS_II             | 15       | 37       | 4       |
| 12W61A0357 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT            | 18       | 41       | 4       |
| 12W61A0357 | R32037  | METROLOGY & INSTRUMENTATION LAB          | 16       | 35       | 2       |
| 12W61A0357 | R32038  | HEAT TRANSFER LAB                        | 17       | 39       | 2       |
| 12W61A0358 | R32031  | METROLOGY                                | 19       | 44       | 4       |
| 12W61A0358 | R32032  | ROBOTICS                                 | 22       | 28       | 4       |
| 12W61A0358 | R32033  | HEAT TRANSFER                            | 19       | 37       | 4       |
| 12W61A0358 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS        | 17       | 16       | 0       |
| 12W61A0358 | R32035  | DESIGN OF MACHINE MEMBERS_II             | 17       | 16       | 0       |
| 12W61A0358 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT            | 13       | 31       | 4       |
| 12W61A0358 | R32037  | METROLOGY & INSTRUMENTATION LAB          | 15       | 35       | 2       |
| 12W61A0358 | R32038  | HEAT TRANSFER LAB                        | 13       | 28       | 2       |
| 12W61A0359 | R32031  | METROLOGY                                | 18       | 27       | 4       |
| 12W61A0359 | R32032  | ROBOTICS                                 | 19       | 63       | 4       |
| 12W61A0359 | R32033  | HEAT TRANSFER                            | 15       | 26       | 4       |
| 12W61A0359 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS        | 18       | 35       | 4       |
| 12W61A0359 | R32035  | DESIGN OF MACHINE MEMBERS_II             | 17       | 41       | 4       |
| 12W61A0359 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT            | 14       | 59       | 4       |
| 12W61A0359 | R32037  | METROLOGY & INSTRUMENTATION LAB          | 16       | 36       | 2       |
| 12W61A0359 | R32038  | HEAT TRANSFER LAB                        | 16       | 38       | 2       |
| 12W61A0401 | R32026  | MANAGEMENT SCIENCE                       | 18       | 35       | 4       |
| 12W61A0401 | R32041  | COMPUTER NETWORKS                        | 19       | 26       | 4       |
| 12W61A0401 | R32042  | MICROWAVE ENGINEERING                    | 19       | 59       | 4       |
| 12W61A0401 | R32043  | DIGITAL SIGNAL PROCESSING                | 16       | 9        | 0       |
| 12W61A0401 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 15       | 35       | 4       |
| 12W61A0401 | R32045  | VLSI DESIGN                              | 17       | 10       | 0       |
| 12W61A0401 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 34       | 2       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0401 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 38       | 2       |
| 12W61A0402 | R32026  | MANAGEMENT SCIENCE                       | 17       | 42       | 4       |
| 12W61A0402 | R32041  | COMPUTER NETWORKS                        | 18       | 48       | 4       |
| 12W61A0402 | R32042  | MICROWAVE ENGINEERING                    | 18       | 26       | 4       |
| 12W61A0402 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 64       | 4       |
| 12W61A0402 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 18       | 29       | 4       |
| 12W61A0402 | R32045  | VLSI DESIGN                              | 21       | 35       | 4       |
| 12W61A0402 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 36       | 2       |
| 12W61A0402 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 39       | 2       |
| 12W61A0403 | R32026  | MANAGEMENT SCIENCE                       | 21       | 35       | 4       |
| 12W61A0403 | R32041  | COMPUTER NETWORKS                        | 24       | 10       | 0       |
| 12W61A0403 | R32042  | MICROWAVE ENGINEERING                    | 20       | 30       | 4       |
| 12W61A0403 | R32043  | DIGITAL SIGNAL PROCESSING                | 21       | 8        | 0       |
| 12W61A0403 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 21       | 29       | 4       |
| 12W61A0403 | R32045  | VLSI DESIGN                              | 20       | 40       | 4       |
| 12W61A0403 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 33       | 2       |
| 12W61A0403 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 37       | 2       |
| 12W61A0404 | R32026  | MANAGEMENT SCIENCE                       | 21       | 48       | 4       |
| 12W61A0404 | R32041  | COMPUTER NETWORKS                        | 25       | 41       | 4       |
| 12W61A0404 | R32042  | MICROWAVE ENGINEERING                    | 22       | 37       | 4       |
| 12W61A0404 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 33       | 4       |
| 12W61A0404 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 24       | 34       | 4       |
| 12W61A0404 | R32045  | VLSI DESIGN                              | 24       | 40       | 4       |
| 12W61A0404 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 24       | 47       | 2       |
| 12W61A0404 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 24       | 49       | 2       |
| 12W61A0405 | R32026  | MANAGEMENT SCIENCE                       | 17       | 38       | 4       |
| 12W61A0405 | R32041  | COMPUTER NETWORKS                        | 23       | 11       | 0       |
| 12W61A0405 | R32042  | MICROWAVE ENGINEERING                    | 20       | 52       | 4       |
| 12W61A0405 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 13       | 0       |
| 12W61A0405 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 23       | 27       | 4       |
| 12W61A0405 | R32045  | VLSI DESIGN                              | 21       | 26       | 4       |
| 12W61A0405 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 45       | 2       |
| 12W61A0405 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 37       | 2       |
| 12W61A0406 | R32026  | MANAGEMENT SCIENCE                       | 17       | 38       | 4       |
| 12W61A0406 | R32041  | COMPUTER NETWORKS                        | 22       | 44       | 4       |
| 12W61A0406 | R32042  | MICROWAVE ENGINEERING                    | 19       | 38       | 4       |
| 12W61A0406 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 38       | 4       |
| 12W61A0406 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 18       | 29       | 4       |
| 12W61A0406 | R32045  | VLSI DESIGN                              | 21       | 38       | 4       |
| 12W61A0406 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 25       | 2       |
| 12W61A0406 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 18       | 36       | 2       |
| 12W61A0407 | R32026  | MANAGEMENT SCIENCE                       | 16       | 37       | 4       |
| 12W61A0407 | R32041  | COMPUTER NETWORKS                        | 19       | 32       | 4       |
| 12W61A0407 | R32042  | MICROWAVE ENGINEERING                    | 18       | 34       | 4       |
| 12W61A0407 | R32043  | DIGITAL SIGNAL PROCESSING                | 13       | 27       | 4       |
| 12W61A0407 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 16       | 36       | 4       |
| 12W61A0407 | R32045  | VLSI DESIGN                              | 21       | 43       | 4       |
| 12W61A0407 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 20       | 34       | 2       |
| 12W61A0407 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 18       | 34       | 2       |
| 12W61A0408 | R32026  | MANAGEMENT SCIENCE                       | 16       | 32       | 4       |
| 12W61A0408 | R32041  | COMPUTER NETWORKS                        | 20       | 43       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0408 | R32042  | MICROWAVE ENGINEERING                    | 19       | 34       | 4       |
| 12W61A0408 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 27       | 4       |
| 12W61A0408 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 21       | 18       | 0       |
| 12W61A0408 | R32045  | VLSI DESIGN                              | 15       | 45       | 4       |
| 12W61A0408 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 15       | 30       | 2       |
| 12W61A0408 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 33       | 2       |
| 12W61A0409 | R32026  | MANAGEMENT SCIENCE                       | 21       | 41       | 4       |
| 12W61A0409 | R32041  | COMPUTER NETWORKS                        | 23       | 48       | 4       |
| 12W61A0409 | R32042  | MICROWAVE ENGINEERING                    | 22       | 54       | 4       |
| 12W61A0409 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 32       | 4       |
| 12W61A0409 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 21       | 50       | 4       |
| 12W61A0409 | R32045  | VLSI DESIGN                              | 25       | 30       | 4       |
| 12W61A0409 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 41       | 2       |
| 12W61A0409 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 26       | 2       |
| 12W61A0410 | R32026  | MANAGEMENT SCIENCE                       | 20       | 29       | 4       |
| 12W61A0410 | R32041  | COMPUTER NETWORKS                        | 20       | 42       | 4       |
| 12W61A0410 | R32042  | MICROWAVE ENGINEERING                    | 16       | 19       | 0       |
| 12W61A0410 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 37       | 4       |
| 12W61A0410 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 16       | 26       | 4       |
| 12W61A0410 | R32045  | VLSI DESIGN                              | 22       | 32       | 4       |
| 12W61A0410 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 14       | 38       | 2       |
| 12W61A0410 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 26       | 2       |
| 12W61A0411 | R32026  | MANAGEMENT SCIENCE                       | 17       | 34       | 4       |
| 12W61A0411 | R32041  | COMPUTER NETWORKS                        | 24       | 26       | 4       |
| 12W61A0411 | R32042  | MICROWAVE ENGINEERING                    | 19       | 33       | 4       |
| 12W61A0411 | R32043  | DIGITAL SIGNAL PROCESSING                | 20       | 34       | 4       |
| 12W61A0411 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 22       | 28       | 4       |
| 12W61A0411 | R32045  | VLSI DESIGN                              | 22       | 43       | 4       |
| 12W61A0411 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 35       | 2       |
| 12W61A0411 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 39       | 2       |
| 12W61A0412 | R32026  | MANAGEMENT SCIENCE                       | 14       | 45       | 4       |
| 12W61A0412 | R32041  | COMPUTER NETWORKS                        | 23       | 49       | 4       |
| 12W61A0412 | R32042  | MICROWAVE ENGINEERING                    | 20       | 36       | 4       |
| 12W61A0412 | R32043  | DIGITAL SIGNAL PROCESSING                | 16       | 29       | 4       |
| 12W61A0412 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 18       | 42       | 4       |
| 12W61A0412 | R32045  | VLSI DESIGN                              | 16       | 40       | 4       |
| 12W61A0412 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 35       | 2       |
| 12W61A0412 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 31       | 2       |
| 12W61A0413 | R32026  | MANAGEMENT SCIENCE                       | 14       | 33       | 4       |
| 12W61A0413 | R32041  | COMPUTER NETWORKS                        | 17       | 9        | 0       |
| 12W61A0413 | R32042  | MICROWAVE ENGINEERING                    | 13       | 46       | 4       |
| 12W61A0413 | R32043  | DIGITAL SIGNAL PROCESSING                | 12       | 2        | 0       |
| 12W61A0413 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 14       | 28       | 4       |
| 12W61A0413 | R32045  | VLSI DESIGN                              | 17       | 8        | 0       |
| 12W61A0413 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 16       | 32       | 2       |
| 12W61A0413 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 29       | 2       |
| 12W61A0414 | R32026  | MANAGEMENT SCIENCE                       | 18       | 47       | 4       |
| 12W61A0414 | R32041  | COMPUTER NETWORKS                        | 20       | 54       | 4       |
| 12W61A0414 | R32042  | MICROWAVE ENGINEERING                    | 21       | 51       | 4       |
| 12W61A0414 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 75       | 4       |
| 12W61A0414 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 46       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0414 | R32045  | VLSI DESIGN                              | 24       | 47       | 4       |
| 12W61A0414 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 41       | 2       |
| 12W61A0414 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 46       | 2       |
| 12W61A0415 | R32026  | MANAGEMENT SCIENCE                       | 19       | 48       | 4       |
| 12W61A0415 | R32041  | COMPUTER NETWORKS                        | 24       | 34       | 4       |
| 12W61A0415 | R32042  | MICROWAVE ENGINEERING                    | 20       | 48       | 4       |
| 12W61A0415 | R32043  | DIGITAL SIGNAL PROCESSING                | 21       | 47       | 4       |
| 12W61A0415 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 24       | 61       | 4       |
| 12W61A0415 | R32045  | VLSI DESIGN                              | 23       | 56       | 4       |
| 12W61A0415 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 45       | 2       |
| 12W61A0415 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 24       | 48       | 2       |
| 12W61A0417 | R32026  | MANAGEMENT SCIENCE                       | 15       | 30       | 4       |
| 12W61A0417 | R32041  | COMPUTER NETWORKS                        | 17       | 35       | 4       |
| 12W61A0417 | R32042  | MICROWAVE ENGINEERING                    | 17       | 36       | 4       |
| 12W61A0417 | R32043  | DIGITAL SIGNAL PROCESSING                | 16       | 35       | 4       |
| 12W61A0417 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 17       | 32       | 4       |
| 12W61A0417 | R32045  | VLSI DESIGN                              | 21       | 35       | 4       |
| 12W61A0417 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 43       | 2       |
| 12W61A0417 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 29       | 2       |
| 12W61A0419 | R32026  | MANAGEMENT SCIENCE                       | 18       | 31       | 4       |
| 12W61A0419 | R32041  | COMPUTER NETWORKS                        | 22       | 35       | 4       |
| 12W61A0419 | R32042  | MICROWAVE ENGINEERING                    | 21       | 52       | 4       |
| 12W61A0419 | R32043  | DIGITAL SIGNAL PROCESSING                | 17       | 26       | 4       |
| 12W61A0419 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 22       | 34       | 4       |
| 12W61A0419 | R32045  | VLSI DESIGN                              | 19       | 29       | 4       |
| 12W61A0419 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 42       | 2       |
| 12W61A0419 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 18       | 34       | 2       |
| 12W61A0420 | R32026  | MANAGEMENT SCIENCE                       | 15       | 44       | 4       |
| 12W61A0420 | R32041  | COMPUTER NETWORKS                        | 20       | 41       | 4       |
| 12W61A0420 | R32042  | MICROWAVE ENGINEERING                    | 19       | 39       | 4       |
| 12W61A0420 | R32043  | DIGITAL SIGNAL PROCESSING                | 20       | 49       | 4       |
| 12W61A0420 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 20       | 12       | 0       |
| 12W61A0420 | R32045  | VLSI DESIGN                              | 21       | 37       | 4       |
| 12W61A0420 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 16       | 35       | 2       |
| 12W61A0420 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 18       | 27       | 2       |
| 12W61A0421 | R32026  | MANAGEMENT SCIENCE                       | 5        | 20       | 0       |
| 12W61A0421 | R32041  | COMPUTER NETWORKS                        | 14       | 5        | 0       |
| 12W61A0421 | R32042  | MICROWAVE ENGINEERING                    | 4        | 10       | 0       |
| 12W61A0421 | R32043  | DIGITAL SIGNAL PROCESSING                | 7        | 0        | 0       |
| 12W61A0421 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 6        | 2        | 0       |
| 12W61A0421 | R32045  | VLSI DESIGN                              | 6        | 16       | 0       |
| 12W61A0421 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 5        | -1       | 0       |
| 12W61A0421 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 0        | 24       | 0       |
| 12W61A0422 | R32026  | MANAGEMENT SCIENCE                       | 23       | 55       | 4       |
| 12W61A0422 | R32041  | COMPUTER NETWORKS                        | 25       | 55       | 4       |
| 12W61A0422 | R32042  | MICROWAVE ENGINEERING                    | 25       | 49       | 4       |
| 12W61A0422 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 60       | 4       |
| 12W61A0422 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 25       | 42       | 4       |
| 12W61A0422 | R32045  | VLSI DESIGN                              | 25       | 57       | 4       |
| 12W61A0422 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 24       | 48       | 2       |
| 12W61A0422 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 24       | 50       | 2       |



| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0423 | R32026  | MANAGEMENT SCIENCE                       | 23       | 45       | 4       |
| 12W61A0423 | R32041  | COMPUTER NETWORKS                        | 24       | 43       | 4       |
| 12W61A0423 | R32042  | MICROWAVE ENGINEERING                    | 22       | 41       | 4       |
| 12W61A0423 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 50       | 4       |
| 12W61A0423 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 24       | 41       | 4       |
| 12W61A0423 | R32045  | VLSI DESIGN                              | 24       | 32       | 4       |
| 12W61A0423 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 15       | 40       | 2       |
| 12W61A0423 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 25       | 2       |
| 12W61A0424 | R32026  | MANAGEMENT SCIENCE                       | 13       | 30       | 4       |
| 12W61A0424 | R32041  | COMPUTER NETWORKS                        | 19       | 35       | 4       |
| 12W61A0424 | R32042  | MICROWAVE ENGINEERING                    | 22       | 27       | 4       |
| 12W61A0424 | R32043  | DIGITAL SIGNAL PROCESSING                | 15       | 35       | 4       |
| 12W61A0424 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 16       | 31       | 4       |
| 12W61A0424 | R32045  | VLSI DESIGN                              | 16       | 31       | 4       |
| 12W61A0424 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 30       | 2       |
| 12W61A0424 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 28       | 2       |
| 12W61A0425 | R32026  | MANAGEMENT SCIENCE                       | 20       | 40       | 4       |
| 12W61A0425 | R32041  | COMPUTER NETWORKS                        | 24       | 26       | 4       |
| 12W61A0425 | R32042  | MICROWAVE ENGINEERING                    | 17       | 28       | 4       |
| 12W61A0425 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 29       | 4       |
| 12W61A0425 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 16       | 32       | 4       |
| 12W61A0425 | R32045  | VLSI DESIGN                              | 22       | 40       | 4       |
| 12W61A0425 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 28       | 2       |
| 12W61A0425 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 40       | 2       |
| 12W61A0426 | R32026  | MANAGEMENT SCIENCE                       | 18       | 36       | 4       |
| 12W61A0426 | R32041  | COMPUTER NETWORKS                        | 24       | 45       | 4       |
| 12W61A0426 | R32042  | MICROWAVE ENGINEERING                    | 20       | 36       | 4       |
| 12W61A0426 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 31       | 4       |
| 12W61A0426 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 25       | 39       | 4       |
| 12W61A0426 | R32045  | VLSI DESIGN                              | 21       | 53       | 4       |
| 12W61A0426 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 40       | 2       |
| 12W61A0426 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 45       | 2       |
| 12W61A0427 | R32026  | MANAGEMENT SCIENCE                       | 17       | 33       | 4       |
| 12W61A0427 | R32041  | COMPUTER NETWORKS                        | 21       | 14       | 0       |
| 12W61A0427 | R32042  | MICROWAVE ENGINEERING                    | 17       | 16       | 0       |
| 12W61A0427 | R32043  | DIGITAL SIGNAL PROCESSING                | 15       | 7        | 0       |
| 12W61A0427 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 15       | 41       | 4       |
| 12W61A0427 | R32045  | VLSI DESIGN                              | 19       | 14       | 0       |
| 12W61A0427 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 28       | 2       |
| 12W61A0427 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 31       | 2       |
| 12W61A0428 | R32026  | MANAGEMENT SCIENCE                       | 21       | 28       | 4       |
| 12W61A0428 | R32041  | COMPUTER NETWORKS                        | 23       | 40       | 4       |
| 12W61A0428 | R32042  | MICROWAVE ENGINEERING                    | 22       | 52       | 4       |
| 12W61A0428 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 54       | 4       |
| 12W61A0428 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 22       | 46       | 4       |
| 12W61A0428 | R32045  | VLSI DESIGN                              | 22       | 33       | 4       |
| 12W61A0428 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 36       | 2       |
| 12W61A0428 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 25       | 47       | 2       |
| 12W61A0429 | R32026  | MANAGEMENT SCIENCE                       | 19       | 41       | 4       |
| 12W61A0429 | R32041  | COMPUTER NETWORKS                        | 20       | 26       | 4       |
| 12W61A0429 | R32042  | MICROWAVE ENGINEERING                    | 23       | 35       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0429 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 44       | 4       |
| 12W61A0429 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 21       | 50       | 4       |
| 12W61A0429 | R32045  | VLSI DESIGN                              | 22       | 43       | 4       |
| 12W61A0429 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 20       | 35       | 2       |
| 12W61A0429 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 34       | 2       |
| 12W61A0430 | R32026  | MANAGEMENT SCIENCE                       | 19       | 39       | 4       |
| 12W61A0430 | R32041  | COMPUTER NETWORKS                        | 21       | 52       | 4       |
| 12W61A0430 | R32042  | MICROWAVE ENGINEERING                    | 17       | 41       | 4       |
| 12W61A0430 | R32043  | DIGITAL SIGNAL PROCESSING                | 17       | 39       | 4       |
| 12W61A0430 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 17       | 36       | 4       |
| 12W61A0430 | R32045  | VLSI DESIGN                              | 22       | 51       | 4       |
| 12W61A0430 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 34       | 2       |
| 12W61A0430 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 34       | 2       |
| 12W61A0431 | R32026  | MANAGEMENT SCIENCE                       | 18       | 42       | 4       |
| 12W61A0431 | R32041  | COMPUTER NETWORKS                        | 21       | 39       | 4       |
| 12W61A0431 | R32042  | MICROWAVE ENGINEERING                    | 16       | 32       | 4       |
| 12W61A0431 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 31       | 4       |
| 12W61A0431 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 21       | 41       | 4       |
| 12W61A0431 | R32045  | VLSI DESIGN                              | 24       | 33       | 4       |
| 12W61A0431 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 39       | 2       |
| 12W61A0431 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 39       | 2       |
| 12W61A0432 | R32026  | MANAGEMENT SCIENCE                       | 19       | 50       | 4       |
| 12W61A0432 | R32041  | COMPUTER NETWORKS                        | 22       | 56       | 4       |
| 12W61A0432 | R32042  | MICROWAVE ENGINEERING                    | 19       | 53       | 4       |
| 12W61A0432 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 61       | 4       |
| 12W61A0432 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 41       | 4       |
| 12W61A0432 | R32045  | VLSI DESIGN                              | 24       | 43       | 4       |
| 12W61A0432 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 23       | 47       | 2       |
| 12W61A0432 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 24       | 39       | 2       |
| 12W61A0433 | R32026  | MANAGEMENT SCIENCE                       | 20       | 42       | 4       |
| 12W61A0433 | R32041  | COMPUTER NETWORKS                        | 24       | 37       | 4       |
| 12W61A0433 | R32042  | MICROWAVE ENGINEERING                    | 19       | 48       | 4       |
| 12W61A0433 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 47       | 4       |
| 12W61A0433 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 21       | 46       | 4       |
| 12W61A0433 | R32045  | VLSI DESIGN                              | 23       | 49       | 4       |
| 12W61A0433 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 46       | 2       |
| 12W61A0433 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 37       | 2       |
| 12W61A0434 | R32026  | MANAGEMENT SCIENCE                       | 16       | 39       | 4       |
| 12W61A0434 | R32041  | COMPUTER NETWORKS                        | 20       | 48       | 4       |
| 12W61A0434 | R32042  | MICROWAVE ENGINEERING                    | 17       | 38       | 4       |
| 12W61A0434 | R32043  | DIGITAL SIGNAL PROCESSING                | 20       | 31       | 4       |
| 12W61A0434 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 15       | 30       | 4       |
| 12W61A0434 | R32045  | VLSI DESIGN                              | 20       | 36       | 4       |
| 12W61A0434 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 13       | 35       | 2       |
| 12W61A0434 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 33       | 2       |
| 12W61A0435 | R32026  | MANAGEMENT SCIENCE                       | 18       | 45       | 4       |
| 12W61A0435 | R32041  | COMPUTER NETWORKS                        | 18       | 26       | 4       |
| 12W61A0435 | R32042  | MICROWAVE ENGINEERING                    | 17       | 27       | 4       |
| 12W61A0435 | R32043  | DIGITAL SIGNAL PROCESSING                | 15       | 13       | 0       |
| 12W61A0435 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 17       | 29       | 4       |
| 12W61A0435 | R32045  | VLSI DESIGN                              | 20       | 8        | 0       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0435 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 35       | 2       |
| 12W61A0435 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 19       | 33       | 2       |
| 12W61A0436 | R32026  | MANAGEMENT SCIENCE                       | 19       | 52       | 4       |
| 12W61A0436 | R32041  | COMPUTER NETWORKS                        | 23       | 53       | 4       |
| 12W61A0436 | R32042  | MICROWAVE ENGINEERING                    | 22       | 35       | 4       |
| 12W61A0436 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 60       | 4       |
| 12W61A0436 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 42       | 4       |
| 12W61A0436 | R32045  | VLSI DESIGN                              | 24       | 40       | 4       |
| 12W61A0436 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 23       | 47       | 2       |
| 12W61A0436 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 50       | 2       |
| 12W61A0437 | R32026  | MANAGEMENT SCIENCE                       | 18       | 37       | 4       |
| 12W61A0437 | R32041  | COMPUTER NETWORKS                        | 21       | 26       | 4       |
| 12W61A0437 | R32042  | MICROWAVE ENGINEERING                    | 21       | 30       | 4       |
| 12W61A0437 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 33       | 4       |
| 12W61A0437 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 24       | 30       | 4       |
| 12W61A0437 | R32045  | VLSI DESIGN                              | 24       | 41       | 4       |
| 12W61A0437 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 38       | 2       |
| 12W61A0437 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 16       | 32       | 2       |
| 12W61A0438 | R32026  | MANAGEMENT SCIENCE                       | 10       | 37       | 4       |
| 12W61A0438 | R32041  | COMPUTER NETWORKS                        | 16       | 40       | 4       |
| 12W61A0438 | R32042  | MICROWAVE ENGINEERING                    | 16       | 36       | 4       |
| 12W61A0438 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 30       | 4       |
| 12W61A0438 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 16       | 35       | 4       |
| 12W61A0438 | R32045  | VLSI DESIGN                              | 17       | 41       | 4       |
| 12W61A0438 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 33       | 2       |
| 12W61A0438 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 32       | 2       |
| 12W61A0439 | R32026  | MANAGEMENT SCIENCE                       | 20       | 55       | 4       |
| 12W61A0439 | R32041  | COMPUTER NETWORKS                        | 22       | 26       | 4       |
| 12W61A0439 | R32042  | MICROWAVE ENGINEERING                    | 20       | 34       | 4       |
| 12W61A0439 | R32043  | DIGITAL SIGNAL PROCESSING                | 21       | 30       | 4       |
| 12W61A0439 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 20       | 41       | 4       |
| 12W61A0439 | R32045  | VLSI DESIGN                              | 21       | 33       | 4       |
| 12W61A0439 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 40       | 2       |
| 12W61A0439 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 48       | 2       |
| 12W61A0440 | R32026  | MANAGEMENT SCIENCE                       | 20       | 44       | 4       |
| 12W61A0440 | R32041  | COMPUTER NETWORKS                        | 18       | 47       | 4       |
| 12W61A0440 | R32042  | MICROWAVE ENGINEERING                    | 16       | 26       | 4       |
| 12W61A0440 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 53       | 4       |
| 12W61A0440 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 18       | 26       | 4       |
| 12W61A0440 | R32045  | VLSI DESIGN                              | 22       | 29       | 4       |
| 12W61A0440 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 42       | 2       |
| 12W61A0440 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 49       | 2       |
| 12W61A0441 | R32026  | MANAGEMENT SCIENCE                       | 16       | 43       | 4       |
| 12W61A0441 | R32041  | COMPUTER NETWORKS                        | 15       | 17       | 0       |
| 12W61A0441 | R32042  | MICROWAVE ENGINEERING                    | 8        | 32       | 4       |
| 12W61A0441 | R32043  | DIGITAL SIGNAL PROCESSING                | 17       | 26       | 4       |
| 12W61A0441 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 0        | 40       | 4       |
| 12W61A0441 | R32045  | VLSI DESIGN                              | 10       | 38       | 4       |
| 12W61A0441 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 5        | -1       | 0       |
| 12W61A0441 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 12       | -1       | 0       |
| 12W61A0442 | R32026  | MANAGEMENT SCIENCE                       | 21       | 50       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0442 | R32041  | COMPUTER NETWORKS                        | 24       | 50       | 4       |
| 12W61A0442 | R32042  | MICROWAVE ENGINEERING                    | 24       | 55       | 4       |
| 12W61A0442 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 32       | 4       |
| 12W61A0442 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 25       | 37       | 4       |
| 12W61A0442 | R32045  | VLSI DESIGN                              | 25       | 51       | 4       |
| 12W61A0442 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 24       | 48       | 2       |
| 12W61A0442 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 47       | 2       |
| 12W61A0443 | R32026  | MANAGEMENT SCIENCE                       | 20       | 67       | 4       |
| 12W61A0443 | R32041  | COMPUTER NETWORKS                        | 24       | 46       | 4       |
| 12W61A0443 | R32042  | MICROWAVE ENGINEERING                    | 24       | 50       | 4       |
| 12W61A0443 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 49       | 4       |
| 12W61A0443 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 50       | 4       |
| 12W61A0443 | R32045  | VLSI DESIGN                              | 24       | 34       | 4       |
| 12W61A0443 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 23       | 46       | 2       |
| 12W61A0443 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 24       | 46       | 2       |
| 12W61A0445 | R32026  | MANAGEMENT SCIENCE                       | 7        | 33       | 4       |
| 12W61A0445 | R32041  | COMPUTER NETWORKS                        | 0        | 40       | 4       |
| 12W61A0445 | R32042  | MICROWAVE ENGINEERING                    | 4        | 18       | 0       |
| 12W61A0445 | R32043  | DIGITAL SIGNAL PROCESSING                | 13       | 38       | 4       |
| 12W61A0445 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 11       | 9        | 0       |
| 12W61A0445 | R32045  | VLSI DESIGN                              | 13       | 27       | 4       |
| 12W61A0445 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 5        | -1       | 0       |
| 12W61A0445 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 10       | 32       | 2       |
| 12W61A0446 | R32026  | MANAGEMENT SCIENCE                       | 21       | 44       | 4       |
| 12W61A0446 | R32041  | COMPUTER NETWORKS                        | 21       | 26       | 4       |
| 12W61A0446 | R32042  | MICROWAVE ENGINEERING                    | 22       | 32       | 4       |
| 12W61A0446 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 49       | 4       |
| 12W61A0446 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 19       | 51       | 4       |
| 12W61A0446 | R32045  | VLSI DESIGN                              | 22       | 42       | 4       |
| 12W61A0446 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 42       | 2       |
| 12W61A0446 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 18       | 39       | 2       |
| 12W61A0447 | R32026  | MANAGEMENT SCIENCE                       | 19       | 28       | 4       |
| 12W61A0447 | R32041  | COMPUTER NETWORKS                        | 8        | 17       | 0       |
| 12W61A0447 | R32042  | MICROWAVE ENGINEERING                    | 2        | 38       | 4       |
| 12W61A0447 | R32043  | DIGITAL SIGNAL PROCESSING                | 12       | 2        | 0       |
| 12W61A0447 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 8        | 26       | 0       |
| 12W61A0447 | R32045  | VLSI DESIGN                              | 22       | 43       | 4       |
| 12W61A0447 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 12       | -1       | 0       |
| 12W61A0447 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 11       | 25       | 2       |
| 12W61A0448 | R32026  | MANAGEMENT SCIENCE                       | 23       | 36       | 4       |
| 12W61A0448 | R32041  | COMPUTER NETWORKS                        | 21       | 33       | 4       |
| 12W61A0448 | R32042  | MICROWAVE ENGINEERING                    | 16       | 41       | 4       |
| 12W61A0448 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 33       | 4       |
| 12W61A0448 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 22       | 28       | 4       |
| 12W61A0448 | R32045  | VLSI DESIGN                              | 24       | 30       | 4       |
| 12W61A0448 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 43       | 2       |
| 12W61A0448 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 41       | 2       |
| 12W61A0449 | R32026  | MANAGEMENT SCIENCE                       | 19       | 48       | 4       |
| 12W61A0449 | R32041  | COMPUTER NETWORKS                        | 23       | 60       | 4       |
| 12W61A0449 | R32042  | MICROWAVE ENGINEERING                    | 22       | 38       | 4       |
| 12W61A0449 | R32043  | DIGITAL SIGNAL PROCESSING                | 20       | 60       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0449 | R32044  | MICROPROCESSORS AND MICROCONTROLLERS     | 22       | 46       | 4       |
| 12W61A0449 | R32045  | VLSI DESIGN                              | 23       | 45       | 4       |
| 12W61A0449 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 37       | 2       |
| 12W61A0449 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 35       | 2       |
| 12W61A0451 | R32026  | MANAGEMENT SCIENCE                       | 18       | 36       | 4       |
| 12W61A0451 | R32041  | COMPUTER NETWORKS                        | 21       | 26       | 4       |
| 12W61A0451 | R32042  | MICROWAVE ENGINEERING                    | 18       | 30       | 4       |
| 12W61A0451 | R32043  | DIGITAL SIGNAL PROCESSING                | 21       | 45       | 4       |
| 12W61A0451 | R32044  | MICROPROCESSORS AND MICROCONTROLLERS     | 19       | 48       | 4       |
| 12W61A0451 | R32045  | VLSI DESIGN                              | 21       | 43       | 4       |
| 12W61A0451 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 23       | 41       | 2       |
| 12W61A0451 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 41       | 2       |
| 12W61A0452 | R32026  | MANAGEMENT SCIENCE                       | 17       | 47       | 4       |
| 12W61A0452 | R32041  | COMPUTER NETWORKS                        | 24       | 41       | 4       |
| 12W61A0452 | R32042  | MICROWAVE ENGINEERING                    | 17       | 34       | 4       |
| 12W61A0452 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 26       | 4       |
| 12W61A0452 | R32044  | MICROPROCESSORS AND MICROCONTROLLERS     | 20       | 30       | 4       |
| 12W61A0452 | R32045  | VLSI DESIGN                              | 24       | 49       | 4       |
| 12W61A0452 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 35       | 2       |
| 12W61A0452 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 38       | 2       |
| 12W61A0453 | R32026  | MANAGEMENT SCIENCE                       | 12       | 28       | 4       |
| 12W61A0453 | R32041  | COMPUTER NETWORKS                        | 14       | 6        | 0       |
| 12W61A0453 | R32042  | MICROWAVE ENGINEERING                    | 12       | 28       | 4       |
| 12W61A0453 | R32043  | DIGITAL SIGNAL PROCESSING                | 12       | 0        | 0       |
| 12W61A0453 | R32044  | MICROPROCESSORS AND MICROCONTROLLERS     | 12       | 31       | 4       |
| 12W61A0453 | R32045  | VLSI DESIGN                              | 15       | 2        | 0       |
| 12W61A0453 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 41       | 2       |
| 12W61A0453 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 36       | 2       |
| 12W61A0454 | R32026  | MANAGEMENT SCIENCE                       | 16       | 37       | 4       |
| 12W61A0454 | R32041  | COMPUTER NETWORKS                        | 19       | 45       | 4       |
| 12W61A0454 | R32042  | MICROWAVE ENGINEERING                    | 17       | 16       | 0       |
| 12W61A0454 | R32043  | DIGITAL SIGNAL PROCESSING                | 15       | 62       | 4       |
| 12W61A0454 | R32044  | MICROPROCESSORS AND MICROCONTROLLERS     | 15       | 15       | 0       |
| 12W61A0454 | R32045  | VLSI DESIGN                              | 19       | 36       | 4       |
| 12W61A0454 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 33       | 2       |
| 12W61A0454 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 32       | 2       |
| 12W61A0455 | R32026  | MANAGEMENT SCIENCE                       | 20       | 33       | 4       |
| 12W61A0455 | R32041  | COMPUTER NETWORKS                        | 22       | 15       | 0       |
| 12W61A0455 | R32042  | MICROWAVE ENGINEERING                    | 16       | 30       | 4       |
| 12W61A0455 | R32043  | DIGITAL SIGNAL PROCESSING                | 15       | 26       | 4       |
| 12W61A0455 | R32044  | MICROPROCESSORS AND MICROCONTROLLERS     | 20       | 28       | 4       |
| 12W61A0455 | R32045  | VLSI DESIGN                              | 21       | 33       | 4       |
| 12W61A0455 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 40       | 2       |
| 12W61A0455 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 31       | 2       |
| 12W61A0456 | R32026  | MANAGEMENT SCIENCE                       | 17       | 39       | 4       |
| 12W61A0456 | R32041  | COMPUTER NETWORKS                        | 14       | 48       | 4       |
| 12W61A0456 | R32042  | MICROWAVE ENGINEERING                    | 11       | 29       | 4       |
| 12W61A0456 | R32043  | DIGITAL SIGNAL PROCESSING                | 15       | 16       | 0       |
| 12W61A0456 | R32044  | MICROPROCESSORS AND MICROCONTROLLERS     | 10       | 33       | 4       |
| 12W61A0456 | R32045  | VLSI DESIGN                              | 18       | 38       | 4       |
| 12W61A0456 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 15       | 38       | 2       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0456 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 37       | 2       |
| 12W61A0457 | R32026  | MANAGEMENT SCIENCE                       | 18       | 32       | 4       |
| 12W61A0457 | R32041  | COMPUTER NETWORKS                        | 18       | 33       | 4       |
| 12W61A0457 | R32042  | MICROWAVE ENGINEERING                    | 19       | 37       | 4       |
| 12W61A0457 | R32043  | DIGITAL SIGNAL PROCESSING                | 17       | 11       | 0       |
| 12W61A0457 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 17       | 35       | 4       |
| 12W61A0457 | R32045  | VLSI DESIGN                              | 19       | 8        | 0       |
| 12W61A0457 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 42       | 2       |
| 12W61A0457 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 27       | 2       |
| 12W61A0458 | R32026  | MANAGEMENT SCIENCE                       | 16       | 39       | 4       |
| 12W61A0458 | R32041  | COMPUTER NETWORKS                        | 17       | 51       | 4       |
| 12W61A0458 | R32042  | MICROWAVE ENGINEERING                    | 14       | 18       | 0       |
| 12W61A0458 | R32043  | DIGITAL SIGNAL PROCESSING                | 14       | 33       | 4       |
| 12W61A0458 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 17       | 13       | 0       |
| 12W61A0458 | R32045  | VLSI DESIGN                              | 19       | 34       | 4       |
| 12W61A0458 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 15       | 30       | 2       |
| 12W61A0458 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 29       | 2       |
| 12W61A0459 | R32026  | MANAGEMENT SCIENCE                       | 17       | 31       | 4       |
| 12W61A0459 | R32041  | COMPUTER NETWORKS                        | 18       | 15       | 0       |
| 12W61A0459 | R32042  | MICROWAVE ENGINEERING                    | 18       | 34       | 4       |
| 12W61A0459 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 35       | 4       |
| 12W61A0459 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 19       | 36       | 4       |
| 12W61A0459 | R32045  | VLSI DESIGN                              | 21       | 50       | 4       |
| 12W61A0459 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 43       | 2       |
| 12W61A0459 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 37       | 2       |
| 12W61A0460 | R32026  | MANAGEMENT SCIENCE                       | 14       | 34       | 4       |
| 12W61A0460 | R32041  | COMPUTER NETWORKS                        | 21       | 40       | 4       |
| 12W61A0460 | R32042  | MICROWAVE ENGINEERING                    | 18       | 31       | 4       |
| 12W61A0460 | R32043  | DIGITAL SIGNAL PROCESSING                | 16       | 26       | 4       |
| 12W61A0460 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 18       | 30       | 4       |
| 12W61A0460 | R32045  | VLSI DESIGN                              | 18       | 35       | 4       |
| 12W61A0460 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 40       | 2       |
| 12W61A0460 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 16       | 31       | 2       |
| 12W61A0461 | R32026  | MANAGEMENT SCIENCE                       | 22       | 39       | 4       |
| 12W61A0461 | R32041  | COMPUTER NETWORKS                        | 21       | 47       | 4       |
| 12W61A0461 | R32042  | MICROWAVE ENGINEERING                    | 25       | 61       | 4       |
| 12W61A0461 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 40       | 4       |
| 12W61A0461 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 20       | 41       | 4       |
| 12W61A0461 | R32045  | VLSI DESIGN                              | 25       | 34       | 4       |
| 12W61A0461 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 23       | 45       | 2       |
| 12W61A0461 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 24       | 49       | 2       |
| 12W61A0462 | R32026  | MANAGEMENT SCIENCE                       | 20       | 31       | 4       |
| 12W61A0462 | R32041  | COMPUTER NETWORKS                        | 15       | 36       | 4       |
| 12W61A0462 | R32042  | MICROWAVE ENGINEERING                    | 18       | 28       | 4       |
| 12W61A0462 | R32043  | DIGITAL SIGNAL PROCESSING                | 20       | 34       | 4       |
| 12W61A0462 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 19       | 26       | 4       |
| 12W61A0462 | R32045  | VLSI DESIGN                              | 20       | 29       | 4       |
| 12W61A0462 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 36       | 2       |
| 12W61A0462 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 18       | 43       | 2       |
| 12W61A0463 | R32026  | MANAGEMENT SCIENCE                       | 24       | 32       | 4       |
| 12W61A0463 | R32041  | COMPUTER NETWORKS                        | 24       | 26       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0463 | R32042  | MICROWAVE ENGINEERING                    | 25       | 34       | 4       |
| 12W61A0463 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 37       | 4       |
| 12W61A0463 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 38       | 4       |
| 12W61A0463 | R32045  | VLSI DESIGN                              | 25       | 43       | 4       |
| 12W61A0463 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 46       | 2       |
| 12W61A0463 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 48       | 2       |
| 12W61A0464 | R32026  | MANAGEMENT SCIENCE                       | 21       | 47       | 4       |
| 12W61A0464 | R32041  | COMPUTER NETWORKS                        | 19       | 55       | 4       |
| 12W61A0464 | R32042  | MICROWAVE ENGINEERING                    | 24       | 43       | 4       |
| 12W61A0464 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 38       | 4       |
| 12W61A0464 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 19       | 37       | 4       |
| 12W61A0464 | R32045  | VLSI DESIGN                              | 22       | 44       | 4       |
| 12W61A0464 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 41       | 2       |
| 12W61A0464 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 47       | 2       |
| 12W61A0466 | R32026  | MANAGEMENT SCIENCE                       | 20       | 34       | 4       |
| 12W61A0466 | R32041  | COMPUTER NETWORKS                        | 19       | 32       | 4       |
| 12W61A0466 | R32042  | MICROWAVE ENGINEERING                    | 23       | 45       | 4       |
| 12W61A0466 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 17       | 0       |
| 12W61A0466 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 24       | 33       | 4       |
| 12W61A0466 | R32045  | VLSI DESIGN                              | 25       | 26       | 4       |
| 12W61A0466 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 44       | 2       |
| 12W61A0466 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 45       | 2       |
| 12W61A0467 | R32026  | MANAGEMENT SCIENCE                       | 19       | 42       | 4       |
| 12W61A0467 | R32041  | COMPUTER NETWORKS                        | 21       | 58       | 4       |
| 12W61A0467 | R32042  | MICROWAVE ENGINEERING                    | 20       | 36       | 4       |
| 12W61A0467 | R32043  | DIGITAL SIGNAL PROCESSING                | 16       | 44       | 4       |
| 12W61A0467 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 20       | 33       | 4       |
| 12W61A0467 | R32045  | VLSI DESIGN                              | 21       | 46       | 4       |
| 12W61A0467 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 40       | 2       |
| 12W61A0467 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 43       | 2       |
| 12W61A0468 | R32026  | MANAGEMENT SCIENCE                       | 19       | 44       | 4       |
| 12W61A0468 | R32041  | COMPUTER NETWORKS                        | 22       | 33       | 4       |
| 12W61A0468 | R32042  | MICROWAVE ENGINEERING                    | 23       | 47       | 4       |
| 12W61A0468 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 34       | 4       |
| 12W61A0468 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 20       | 46       | 4       |
| 12W61A0468 | R32045  | VLSI DESIGN                              | 24       | 43       | 4       |
| 12W61A0468 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 20       | 40       | 2       |
| 12W61A0468 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 19       | 46       | 2       |
| 12W61A0470 | R32026  | MANAGEMENT SCIENCE                       | 16       | 30       | 4       |
| 12W61A0470 | R32041  | COMPUTER NETWORKS                        | 10       | -1       | 0       |
| 12W61A0470 | R32042  | MICROWAVE ENGINEERING                    | 4        | 13       | 0       |
| 12W61A0470 | R32043  | DIGITAL SIGNAL PROCESSING                | 5        | 1        | 0       |
| 12W61A0470 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 10       | -1       | 0       |
| 12W61A0470 | R32045  | VLSI DESIGN                              | 13       | 28       | 4       |
| 12W61A0470 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 0        | -1       | 0       |
| 12W61A0470 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 6        | -1       | 0       |
| 12W61A0471 | R32026  | MANAGEMENT SCIENCE                       | 20       | 34       | 4       |
| 12W61A0471 | R32041  | COMPUTER NETWORKS                        | 22       | 33       | 4       |
| 12W61A0471 | R32042  | MICROWAVE ENGINEERING                    | 23       | 38       | 4       |
| 12W61A0471 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 14       | 0       |
| 12W61A0471 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 20       | 28       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0471 | R32045  | VLSI DESIGN                              | 15       | 32       | 4       |
| 12W61A0471 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 30       | 2       |
| 12W61A0471 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 40       | 2       |
| 12W61A0473 | R32026  | MANAGEMENT SCIENCE                       | 22       | 31       | 4       |
| 12W61A0473 | R32041  | COMPUTER NETWORKS                        | 23       | 48       | 4       |
| 12W61A0473 | R32042  | MICROWAVE ENGINEERING                    | 24       | 33       | 4       |
| 12W61A0473 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 60       | 4       |
| 12W61A0473 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 20       | 35       | 4       |
| 12W61A0473 | R32045  | VLSI DESIGN                              | 20       | 29       | 4       |
| 12W61A0473 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 43       | 2       |
| 12W61A0473 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 42       | 2       |
| 12W61A0474 | R32026  | MANAGEMENT SCIENCE                       | 19       | 19       | 0       |
| 12W61A0474 | R32041  | COMPUTER NETWORKS                        | 21       | 8        | 0       |
| 12W61A0474 | R32042  | MICROWAVE ENGINEERING                    | 23       | 29       | 4       |
| 12W61A0474 | R32043  | DIGITAL SIGNAL PROCESSING                | 21       | 28       | 4       |
| 12W61A0474 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 21       | 37       | 4       |
| 12W61A0474 | R32045  | VLSI DESIGN                              | 23       | 38       | 4       |
| 12W61A0474 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 20       | 36       | 2       |
| 12W61A0474 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 47       | 2       |
| 12W61A0475 | R32026  | MANAGEMENT SCIENCE                       | 21       | 45       | 4       |
| 12W61A0475 | R32041  | COMPUTER NETWORKS                        | 23       | 34       | 4       |
| 12W61A0475 | R32042  | MICROWAVE ENGINEERING                    | 24       | 16       | 0       |
| 12W61A0475 | R32043  | DIGITAL SIGNAL PROCESSING                | 17       | 11       | 0       |
| 12W61A0475 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 22       | 26       | 4       |
| 12W61A0475 | R32045  | VLSI DESIGN                              | 19       | 34       | 4       |
| 12W61A0475 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 20       | 34       | 2       |
| 12W61A0475 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 18       | 40       | 2       |
| 12W61A0476 | R32026  | MANAGEMENT SCIENCE                       | 17       | 30       | 4       |
| 12W61A0476 | R32041  | COMPUTER NETWORKS                        | 24       | 15       | 0       |
| 12W61A0476 | R32042  | MICROWAVE ENGINEERING                    | 21       | 30       | 4       |
| 12W61A0476 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 16       | 0       |
| 12W61A0476 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 18       | 40       | 4       |
| 12W61A0476 | R32045  | VLSI DESIGN                              | 20       | 11       | 0       |
| 12W61A0476 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 40       | 2       |
| 12W61A0476 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 44       | 2       |
| 12W61A0477 | R32026  | MANAGEMENT SCIENCE                       | 20       | 44       | 4       |
| 12W61A0477 | R32041  | COMPUTER NETWORKS                        | 23       | 54       | 4       |
| 12W61A0477 | R32042  | MICROWAVE ENGINEERING                    | 20       | 40       | 4       |
| 12W61A0477 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 70       | 4       |
| 12W61A0477 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 22       | 35       | 4       |
| 12W61A0477 | R32045  | VLSI DESIGN                              | 20       | 44       | 4       |
| 12W61A0477 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 45       | 2       |
| 12W61A0477 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 19       | 39       | 2       |
| 12W61A0478 | R32026  | MANAGEMENT SCIENCE                       | 10       | 33       | 4       |
| 12W61A0478 | R32041  | COMPUTER NETWORKS                        | 18       | 10       | 0       |
| 12W61A0478 | R32042  | MICROWAVE ENGINEERING                    | 21       | 30       | 4       |
| 12W61A0478 | R32043  | DIGITAL SIGNAL PROCESSING                | 0        | 18       | 0       |
| 12W61A0478 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 16       | 29       | 4       |
| 12W61A0478 | R32045  | VLSI DESIGN                              | 18       | 39       | 4       |
| 12W61A0478 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 25       | 2       |
| 12W61A0478 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 14       | 44       | 2       |



| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0479 | R32026  | MANAGEMENT SCIENCE                       | 23       | 49       | 4       |
| 12W61A0479 | R32041  | COMPUTER NETWORKS                        | 22       | 44       | 4       |
| 12W61A0479 | R32042  | MICROWAVE ENGINEERING                    | 23       | 33       | 4       |
| 12W61A0479 | R32043  | DIGITAL SIGNAL PROCESSING                | 25       | 45       | 4       |
| 12W61A0479 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 20       | 45       | 4       |
| 12W61A0479 | R32045  | VLSI DESIGN                              | 22       | 53       | 4       |
| 12W61A0479 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 23       | 46       | 2       |
| 12W61A0479 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 48       | 2       |
| 12W61A0480 | R32026  | MANAGEMENT SCIENCE                       | 18       | 28       | 4       |
| 12W61A0480 | R32041  | COMPUTER NETWORKS                        | 17       | 36       | 4       |
| 12W61A0480 | R32042  | MICROWAVE ENGINEERING                    | 22       | 30       | 4       |
| 12W61A0480 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 4        | 0       |
| 12W61A0480 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 15       | 36       | 4       |
| 12W61A0480 | R32045  | VLSI DESIGN                              | 17       | 12       | 0       |
| 12W61A0480 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 32       | 2       |
| 12W61A0480 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 19       | 40       | 2       |
| 12W61A0481 | R32026  | MANAGEMENT SCIENCE                       | 20       | 55       | 4       |
| 12W61A0481 | R32041  | COMPUTER NETWORKS                        | 22       | 45       | 4       |
| 12W61A0481 | R32042  | MICROWAVE ENGINEERING                    | 23       | 45       | 4       |
| 12W61A0481 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 54       | 4       |
| 12W61A0481 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 32       | 4       |
| 12W61A0481 | R32045  | VLSI DESIGN                              | 21       | 40       | 4       |
| 12W61A0481 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 46       | 2       |
| 12W61A0481 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 46       | 2       |
| 12W61A0482 | R32026  | MANAGEMENT SCIENCE                       | 23       | 35       | 4       |
| 12W61A0482 | R32041  | COMPUTER NETWORKS                        | 24       | 13       | 0       |
| 12W61A0482 | R32042  | MICROWAVE ENGINEERING                    | 24       | 35       | 4       |
| 12W61A0482 | R32043  | DIGITAL SIGNAL PROCESSING                | 25       | 49       | 4       |
| 12W61A0482 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 22       | 56       | 4       |
| 12W61A0482 | R32045  | VLSI DESIGN                              | 23       | 39       | 4       |
| 12W61A0482 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 46       | 2       |
| 12W61A0482 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 45       | 2       |
| 12W61A0483 | R32026  | MANAGEMENT SCIENCE                       | 22       | 43       | 4       |
| 12W61A0483 | R32041  | COMPUTER NETWORKS                        | 24       | 43       | 4       |
| 12W61A0483 | R32042  | MICROWAVE ENGINEERING                    | 23       | 36       | 4       |
| 12W61A0483 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 45       | 4       |
| 12W61A0483 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 24       | 42       | 4       |
| 12W61A0483 | R32045  | VLSI DESIGN                              | 23       | 47       | 4       |
| 12W61A0483 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 46       | 2       |
| 12W61A0483 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 24       | 49       | 2       |
| 12W61A0485 | R32026  | MANAGEMENT SCIENCE                       | 19       | 31       | 4       |
| 12W61A0485 | R32041  | COMPUTER NETWORKS                        | 19       | 13       | 0       |
| 12W61A0485 | R32042  | MICROWAVE ENGINEERING                    | 23       | 31       | 4       |
| 12W61A0485 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 15       | 0       |
| 12W61A0485 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 21       | 30       | 4       |
| 12W61A0485 | R32045  | VLSI DESIGN                              | 20       | 26       | 4       |
| 12W61A0485 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 44       | 2       |
| 12W61A0485 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 45       | 2       |
| 12W61A0486 | R32026  | MANAGEMENT SCIENCE                       | 19       | 41       | 4       |
| 12W61A0486 | R32041  | COMPUTER NETWORKS                        | 20       | 54       | 4       |
| 12W61A0486 | R32042  | MICROWAVE ENGINEERING                    | 23       | 38       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0486 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 61       | 4       |
| 12W61A0486 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 21       | 43       | 4       |
| 12W61A0486 | R32045  | VLSI DESIGN                              | 25       | 38       | 4       |
| 12W61A0486 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 36       | 2       |
| 12W61A0486 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 46       | 2       |
| 12W61A0487 | R32026  | MANAGEMENT SCIENCE                       | 22       | 41       | 4       |
| 12W61A0487 | R32041  | COMPUTER NETWORKS                        | 21       | 15       | 0       |
| 12W61A0487 | R32042  | MICROWAVE ENGINEERING                    | 22       | 31       | 4       |
| 12W61A0487 | R32043  | DIGITAL SIGNAL PROCESSING                | 20       | 34       | 4       |
| 12W61A0487 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 22       | 39       | 4       |
| 12W61A0487 | R32045  | VLSI DESIGN                              | 20       | 41       | 4       |
| 12W61A0487 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 41       | 2       |
| 12W61A0487 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 19       | 40       | 2       |
| 12W61A0488 | R32026  | MANAGEMENT SCIENCE                       | 22       | 44       | 4       |
| 12W61A0488 | R32041  | COMPUTER NETWORKS                        | 22       | 40       | 4       |
| 12W61A0488 | R32042  | MICROWAVE ENGINEERING                    | 22       | 36       | 4       |
| 12W61A0488 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 6        | 0       |
| 12W61A0488 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 18       | 19       | 0       |
| 12W61A0488 | R32045  | VLSI DESIGN                              | 19       | 42       | 4       |
| 12W61A0488 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 40       | 2       |
| 12W61A0488 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 40       | 2       |
| 12W61A0489 | R32026  | MANAGEMENT SCIENCE                       | 20       | 27       | 4       |
| 12W61A0489 | R32041  | COMPUTER NETWORKS                        | 19       | 26       | 4       |
| 12W61A0489 | R32042  | MICROWAVE ENGINEERING                    | 24       | 36       | 4       |
| 12W61A0489 | R32043  | DIGITAL SIGNAL PROCESSING                | 20       | 10       | 0       |
| 12W61A0489 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 22       | 38       | 4       |
| 12W61A0489 | R32045  | VLSI DESIGN                              | 21       | 10       | 0       |
| 12W61A0489 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 35       | 2       |
| 12W61A0489 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 16       | 38       | 2       |
| 12W61A0490 | R32026  | MANAGEMENT SCIENCE                       | 14       | 34       | 4       |
| 12W61A0490 | R32041  | COMPUTER NETWORKS                        | 18       | 41       | 4       |
| 12W61A0490 | R32042  | MICROWAVE ENGINEERING                    | 18       | 31       | 4       |
| 12W61A0490 | R32043  | DIGITAL SIGNAL PROCESSING                | 16       | 36       | 4       |
| 12W61A0490 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 14       | 17       | 0       |
| 12W61A0490 | R32045  | VLSI DESIGN                              | 15       | 42       | 4       |
| 12W61A0490 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 37       | 2       |
| 12W61A0490 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 44       | 2       |
| 12W61A0491 | R32026  | MANAGEMENT SCIENCE                       | 14       | 35       | 4       |
| 12W61A0491 | R32041  | COMPUTER NETWORKS                        | 21       | 11       | 0       |
| 12W61A0491 | R32042  | MICROWAVE ENGINEERING                    | 24       | 35       | 4       |
| 12W61A0491 | R32043  | DIGITAL SIGNAL PROCESSING                | 17       | 13       | 0       |
| 12W61A0491 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 17       | 4        | 0       |
| 12W61A0491 | R32045  | VLSI DESIGN                              | 21       | 52       | 4       |
| 12W61A0491 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 27       | 2       |
| 12W61A0491 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 42       | 2       |
| 12W61A0492 | R32026  | MANAGEMENT SCIENCE                       | 23       | 52       | 4       |
| 12W61A0492 | R32041  | COMPUTER NETWORKS                        | 20       | 44       | 4       |
| 12W61A0492 | R32042  | MICROWAVE ENGINEERING                    | 25       | 36       | 4       |
| 12W61A0492 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 28       | 4       |
| 12W61A0492 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 20       | 33       | 4       |
| 12W61A0492 | R32045  | VLSI DESIGN                              | 22       | 40       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A0492 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 39       | 2       |
| 12W61A0492 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 47       | 2       |
| 12W61A0494 | R32026  | MANAGEMENT SCIENCE                       | 22       | 35       | 4       |
| 12W61A0494 | R32041  | COMPUTER NETWORKS                        | 23       | 26       | 4       |
| 12W61A0494 | R32042  | MICROWAVE ENGINEERING                    | 23       | 33       | 4       |
| 12W61A0494 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 9        | 0       |
| 12W61A0494 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 17       | 37       | 4       |
| 12W61A0494 | R32045  | VLSI DESIGN                              | 19       | 12       | 0       |
| 12W61A0494 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 41       | 2       |
| 12W61A0494 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 19       | 45       | 2       |
| 12W61A0495 | R32026  | MANAGEMENT SCIENCE                       | 24       | 50       | 4       |
| 12W61A0495 | R32041  | COMPUTER NETWORKS                        | 25       | 57       | 4       |
| 12W61A0495 | R32042  | MICROWAVE ENGINEERING                    | 24       | 45       | 4       |
| 12W61A0495 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 75       | 4       |
| 12W61A0495 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 24       | 51       | 4       |
| 12W61A0495 | R32045  | VLSI DESIGN                              | 24       | 45       | 4       |
| 12W61A0495 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 47       | 2       |
| 12W61A0495 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 48       | 2       |
| 12W61A0496 | R32026  | MANAGEMENT SCIENCE                       | 16       | 30       | 4       |
| 12W61A0496 | R32041  | COMPUTER NETWORKS                        | 19       | 15       | 0       |
| 12W61A0496 | R32042  | MICROWAVE ENGINEERING                    | 23       | 29       | 4       |
| 12W61A0496 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 34       | 4       |
| 12W61A0496 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 17       | 46       | 4       |
| 12W61A0496 | R32045  | VLSI DESIGN                              | 20       | 50       | 4       |
| 12W61A0496 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 41       | 2       |
| 12W61A0496 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 18       | 40       | 2       |
| 12W61A0497 | R32026  | MANAGEMENT SCIENCE                       | 21       | 39       | 4       |
| 12W61A0497 | R32041  | COMPUTER NETWORKS                        | 21       | 40       | 4       |
| 12W61A0497 | R32042  | MICROWAVE ENGINEERING                    | 23       | 44       | 4       |
| 12W61A0497 | R32043  | DIGITAL SIGNAL PROCESSING                | 20       | 45       | 4       |
| 12W61A0497 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 24       | 40       | 4       |
| 12W61A0497 | R32045  | VLSI DESIGN                              | 22       | 52       | 4       |
| 12W61A0497 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 41       | 2       |
| 12W61A0497 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 42       | 2       |
| 12W61A0498 | R32026  | MANAGEMENT SCIENCE                       | 23       | 36       | 4       |
| 12W61A0498 | R32041  | COMPUTER NETWORKS                        | 23       | 37       | 4       |
| 12W61A0498 | R32042  | MICROWAVE ENGINEERING                    | 23       | 64       | 4       |
| 12W61A0498 | R32043  | DIGITAL SIGNAL PROCESSING                | 25       | 40       | 4       |
| 12W61A0498 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 53       | 4       |
| 12W61A0498 | R32045  | VLSI DESIGN                              | 25       | 43       | 4       |
| 12W61A0498 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 21       | 43       | 2       |
| 12W61A0498 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 47       | 2       |
| 12W61A0499 | R32026  | MANAGEMENT SCIENCE                       | 21       | 49       | 4       |
| 12W61A0499 | R32041  | COMPUTER NETWORKS                        | 21       | 57       | 4       |
| 12W61A0499 | R32042  | MICROWAVE ENGINEERING                    | 24       | 31       | 4       |
| 12W61A0499 | R32043  | DIGITAL SIGNAL PROCESSING                | 16       | 43       | 4       |
| 12W61A0499 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 19       | 36       | 4       |
| 12W61A0499 | R32045  | VLSI DESIGN                              | 21       | 34       | 4       |
| 12W61A0499 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 34       | 2       |
| 12W61A0499 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 19       | 39       | 2       |
| 12W61A04A0 | R32026  | MANAGEMENT SCIENCE                       | 19       | 38       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A04A0 | R32041  | COMPUTER NETWORKS                        | 22       | 33       | 4       |
| 12W61A04A0 | R32042  | MICROWAVE ENGINEERING                    | 23       | 35       | 4       |
| 12W61A04A0 | R32043  | DIGITAL SIGNAL PROCESSING                | 21       | 42       | 4       |
| 12W61A04A0 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 19       | 36       | 4       |
| 12W61A04A0 | R32045  | VLSI DESIGN                              | 22       | 44       | 4       |
| 12W61A04A0 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 20       | 41       | 2       |
| 12W61A04A0 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 44       | 2       |
| 12W61A04A1 | R32026  | MANAGEMENT SCIENCE                       | 19       | 30       | 4       |
| 12W61A04A1 | R32041  | COMPUTER NETWORKS                        | 19       | 43       | 4       |
| 12W61A04A1 | R32042  | MICROWAVE ENGINEERING                    | 22       | 38       | 4       |
| 12W61A04A1 | R32043  | DIGITAL SIGNAL PROCESSING                | 21       | 27       | 4       |
| 12W61A04A1 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 17       | 34       | 4       |
| 12W61A04A1 | R32045  | VLSI DESIGN                              | 16       | 51       | 4       |
| 12W61A04A1 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 16       | 27       | 2       |
| 12W61A04A1 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 19       | 45       | 2       |
| 12W61A04A2 | R32026  | MANAGEMENT SCIENCE                       | 23       | 37       | 4       |
| 12W61A04A2 | R32041  | COMPUTER NETWORKS                        | 22       | 59       | 4       |
| 12W61A04A2 | R32042  | MICROWAVE ENGINEERING                    | 24       | 64       | 4       |
| 12W61A04A2 | R32043  | DIGITAL SIGNAL PROCESSING                | 24       | 56       | 4       |
| 12W61A04A2 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 24       | 50       | 4       |
| 12W61A04A2 | R32045  | VLSI DESIGN                              | 24       | 35       | 4       |
| 12W61A04A2 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 23       | 49       | 2       |
| 12W61A04A2 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 25       | 49       | 2       |
| 12W61A04A3 | R32026  | MANAGEMENT SCIENCE                       | 24       | 43       | 4       |
| 12W61A04A3 | R32041  | COMPUTER NETWORKS                        | 25       | 45       | 4       |
| 12W61A04A3 | R32042  | MICROWAVE ENGINEERING                    | 25       | 49       | 4       |
| 12W61A04A3 | R32043  | DIGITAL SIGNAL PROCESSING                | 25       | 56       | 4       |
| 12W61A04A3 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 24       | 58       | 4       |
| 12W61A04A3 | R32045  | VLSI DESIGN                              | 24       | 44       | 4       |
| 12W61A04A3 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 48       | 2       |
| 12W61A04A3 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 25       | 49       | 2       |
| 12W61A04A4 | R32026  | MANAGEMENT SCIENCE                       | 14       | 41       | 4       |
| 12W61A04A4 | R32041  | COMPUTER NETWORKS                        | 12       | 12       | 0       |
| 12W61A04A4 | R32042  | MICROWAVE ENGINEERING                    | 16       | 3        | 0       |
| 12W61A04A4 | R32043  | DIGITAL SIGNAL PROCESSING                | 11       | 6        | 0       |
| 12W61A04A4 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 17       | 2        | 0       |
| 12W61A04A4 | R32045  | VLSI DESIGN                              | 14       | 33       | 4       |
| 12W61A04A4 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 15       | -1       | 0       |
| 12W61A04A4 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 15       | 39       | 2       |
| 12W61A04A5 | R32026  | MANAGEMENT SCIENCE                       | 20       | -1       | 0       |
| 12W61A04A5 | R32041  | COMPUTER NETWORKS                        | 23       | 45       | 4       |
| 12W61A04A5 | R32042  | MICROWAVE ENGINEERING                    | 24       | 41       | 4       |
| 12W61A04A5 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 40       | 4       |
| 12W61A04A5 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 22       | 43       | 4       |
| 12W61A04A5 | R32045  | VLSI DESIGN                              | 21       | 58       | 4       |
| 12W61A04A5 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 22       | 47       | 2       |
| 12W61A04A5 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 24       | 49       | 2       |
| 12W61A04A6 | R32026  | MANAGEMENT SCIENCE                       | 20       | 39       | 4       |
| 12W61A04A6 | R32041  | COMPUTER NETWORKS                        | 24       | 44       | 4       |
| 12W61A04A6 | R32042  | MICROWAVE ENGINEERING                    | 25       | 66       | 4       |
| 12W61A04A6 | R32043  | DIGITAL SIGNAL PROCESSING                | 23       | 38       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 12W61A04A6 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 24       | 42       | 4       |
| 12W61A04A6 | R32045  | VLSI DESIGN                              | 25       | 33       | 4       |
| 12W61A04A6 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 24       | 48       | 2       |
| 12W61A04A6 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 24       | 49       | 2       |
| 12W61A04A7 | R32026  | MANAGEMENT SCIENCE                       | 23       | 40       | 4       |
| 12W61A04A7 | R32041  | COMPUTER NETWORKS                        | 23       | 37       | 4       |
| 12W61A04A7 | R32042  | MICROWAVE ENGINEERING                    | 25       | 28       | 4       |
| 12W61A04A7 | R32043  | DIGITAL SIGNAL PROCESSING                | 22       | 50       | 4       |
| 12W61A04A7 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 53       | 4       |
| 12W61A04A7 | R32045  | VLSI DESIGN                              | 23       | 50       | 4       |
| 12W61A04A7 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 41       | 2       |
| 12W61A04A7 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 47       | 2       |
| 12W61A04A8 | R32026  | MANAGEMENT SCIENCE                       | 20       | 48       | 4       |
| 12W61A04A8 | R32041  | COMPUTER NETWORKS                        | 20       | 39       | 4       |
| 12W61A04A8 | R32042  | MICROWAVE ENGINEERING                    | 23       | 32       | 4       |
| 12W61A04A8 | R32043  | DIGITAL SIGNAL PROCESSING                | 21       | 14       | 0       |
| 12W61A04A8 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 22       | 38       | 4       |
| 12W61A04A8 | R32045  | VLSI DESIGN                              | 21       | 51       | 4       |
| 12W61A04A8 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 39       | 2       |
| 12W61A04A8 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 41       | 2       |
| 12W61A0501 | R32026  | MANAGEMENT SCIENCE                       | 15       | 26       | 4       |
| 12W61A0501 | R32051  | ADVANCED COMPUTER NETWORKS               | 19       | 36       | 4       |
| 12W61A0501 | R32052  | COMPUTER ARCHITECTURE                    | 13       | 37       | 4       |
| 12W61A0501 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS        | 17       | 14       | 0       |
| 12W61A0501 | R32054  | UNIX PROGRAMMING                         | 14       | 29       | 4       |
| 12W61A0501 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES       | 16       | 42       | 4       |
| 12W61A0501 | R32057  | COMPUTER NETWORKS AND UNIX LAB           | 22       | 44       | 2       |
| 12W61A0501 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB   | 23       | 45       | 2       |
| 12W61A0502 | R32026  | MANAGEMENT SCIENCE                       | 15       | 47       | 4       |
| 12W61A0502 | R32051  | ADVANCED COMPUTER NETWORKS               | 18       | 39       | 4       |
| 12W61A0502 | R32052  | COMPUTER ARCHITECTURE                    | 18       | 30       | 4       |
| 12W61A0502 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS        | 19       | 26       | 4       |
| 12W61A0502 | R32054  | UNIX PROGRAMMING                         | 15       | 28       | 4       |
| 12W61A0502 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES       | 17       | 34       | 4       |
| 12W61A0502 | R32057  | COMPUTER NETWORKS AND UNIX LAB           | 22       | 44       | 2       |
| 12W61A0502 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB   | 23       | 45       | 2       |
| 12W61A0503 | R32026  | MANAGEMENT SCIENCE                       | 15       | 35       | 4       |
| 12W61A0503 | R32051  | ADVANCED COMPUTER NETWORKS               | 16       | 31       | 4       |
| 12W61A0503 | R32052  | COMPUTER ARCHITECTURE                    | 16       | 33       | 4       |
| 12W61A0503 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS        | 20       | 29       | 4       |
| 12W61A0503 | R32054  | UNIX PROGRAMMING                         | 15       | 27       | 4       |
| 12W61A0503 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES       | 14       | 8        | 0       |
| 12W61A0503 | R32057  | COMPUTER NETWORKS AND UNIX LAB           | 22       | 40       | 2       |
| 12W61A0503 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB   | 18       | 38       | 2       |
| 12W61A0504 | R32026  | MANAGEMENT SCIENCE                       | 25       | 46       | 4       |
| 12W61A0504 | R32051  | ADVANCED COMPUTER NETWORKS               | 18       | 34       | 4       |
| 12W61A0504 | R32052  | COMPUTER ARCHITECTURE                    | 22       | 35       | 4       |
| 12W61A0504 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS        | 23       | 8        | 0       |
| 12W61A0504 | R32054  | UNIX PROGRAMMING                         | 23       | 34       | 4       |
| 12W61A0504 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES       | 19       | 34       | 4       |
| 12W61A0504 | R32057  | COMPUTER NETWORKS AND UNIX LAB           | 23       | 47       | 2       |

| Htno       | Subcode | Subname                                | Internal | External | credits |
|------------|---------|----------------------------------------|----------|----------|---------|
| 12W61A0504 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 22       | 48       | 2       |
| 12W61A0506 | R32026  | MANAGEMENT SCIENCE                     | 23       | 37       | 4       |
| 12W61A0506 | R32051  | ADVANCED COMPUTER NETWORKS             | 22       | 52       | 4       |
| 12W61A0506 | R32052  | COMPUTER ARCHITECTURE                  | 23       | 58       | 4       |
| 12W61A0506 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 24       | 32       | 4       |
| 12W61A0506 | R32054  | UNIX PROGRAMMING                       | 23       | 47       | 4       |
| 12W61A0506 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 25       | 66       | 4       |
| 12W61A0506 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 25       | 50       | 2       |
| 12W61A0506 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 25       | 50       | 2       |
| 12W61A0507 | R32026  | MANAGEMENT SCIENCE                     | 19       | 50       | 4       |
| 12W61A0507 | R32051  | ADVANCED COMPUTER NETWORKS             | 19       | 37       | 4       |
| 12W61A0507 | R32052  | COMPUTER ARCHITECTURE                  | 16       | 37       | 4       |
| 12W61A0507 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 19       | 33       | 4       |
| 12W61A0507 | R32054  | UNIX PROGRAMMING                       | 18       | 33       | 4       |
| 12W61A0507 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 14       | 40       | 4       |
| 12W61A0507 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 23       | 49       | 2       |
| 12W61A0507 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 23       | 45       | 2       |
| 12W61A0509 | R32026  | MANAGEMENT SCIENCE                     | 16       | 42       | 4       |
| 12W61A0509 | R32051  | ADVANCED COMPUTER NETWORKS             | 20       | 29       | 4       |
| 12W61A0509 | R32052  | COMPUTER ARCHITECTURE                  | 19       | 47       | 4       |
| 12W61A0509 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 23       | 41       | 4       |
| 12W61A0509 | R32054  | UNIX PROGRAMMING                       | 21       | 26       | 4       |
| 12W61A0509 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 18       | 29       | 4       |
| 12W61A0509 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 23       | 47       | 2       |
| 12W61A0509 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 22       | 47       | 2       |
| 12W61A0510 | R32026  | MANAGEMENT SCIENCE                     | 20       | 45       | 4       |
| 12W61A0510 | R32051  | ADVANCED COMPUTER NETWORKS             | 16       | 41       | 4       |
| 12W61A0510 | R32052  | COMPUTER ARCHITECTURE                  | 15       | 40       | 4       |
| 12W61A0510 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 21       | 41       | 4       |
| 12W61A0510 | R32054  | UNIX PROGRAMMING                       | 15       | 28       | 4       |
| 12W61A0510 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 19       | 44       | 4       |
| 12W61A0510 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 22       | 43       | 2       |
| 12W61A0510 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 23       | 45       | 2       |
| 12W61A0511 | R32026  | MANAGEMENT SCIENCE                     | 23       | 42       | 4       |
| 12W61A0511 | R32051  | ADVANCED COMPUTER NETWORKS             | 24       | 53       | 4       |
| 12W61A0511 | R32052  | COMPUTER ARCHITECTURE                  | 21       | 55       | 4       |
| 12W61A0511 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 23       | 34       | 4       |
| 12W61A0511 | R32054  | UNIX PROGRAMMING                       | 24       | 42       | 4       |
| 12W61A0511 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 23       | 39       | 4       |
| 12W61A0511 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 24       | 48       | 2       |
| 12W61A0511 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 24       | 49       | 2       |
| 12W61A0512 | R32026  | MANAGEMENT SCIENCE                     | 19       | 38       | 4       |
| 12W61A0512 | R32051  | ADVANCED COMPUTER NETWORKS             | 16       | 33       | 4       |
| 12W61A0512 | R32052  | COMPUTER ARCHITECTURE                  | 23       | 33       | 4       |
| 12W61A0512 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 21       | 14       | 0       |
| 12W61A0512 | R32054  | UNIX PROGRAMMING                       | 20       | 39       | 4       |
| 12W61A0512 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 18       | 36       | 4       |
| 12W61A0512 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 24       | 49       | 2       |
| 12W61A0512 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 24       | 46       | 2       |
| 12W61A0513 | R32026  | MANAGEMENT SCIENCE                     | 18       | 49       | 4       |
| 12W61A0513 | R32051  | ADVANCED COMPUTER NETWORKS             | 19       | 37       | 4       |

| Htno       | Subcode | Subname                                | Internal | External | credits |
|------------|---------|----------------------------------------|----------|----------|---------|
| 12W61A0513 | R32052  | COMPUTER ARCHITECTURE                  | 17       | 48       | 4       |
| 12W61A0513 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 23       | 51       | 4       |
| 12W61A0513 | R32054  | UNIX PROGRAMMING                       | 19       | 31       | 4       |
| 12W61A0513 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 19       | 36       | 4       |
| 12W61A0513 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 23       | 48       | 2       |
| 12W61A0513 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 23       | 46       | 2       |
| 12W61A0514 | R32026  | MANAGEMENT SCIENCE                     | 18       | 44       | 4       |
| 12W61A0514 | R32051  | ADVANCED COMPUTER NETWORKS             | 19       | 40       | 4       |
| 12W61A0514 | R32052  | COMPUTER ARCHITECTURE                  | 16       | 38       | 4       |
| 12W61A0514 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 24       | 40       | 4       |
| 12W61A0514 | R32054  | UNIX PROGRAMMING                       | 18       | 31       | 4       |
| 12W61A0514 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 20       | 43       | 4       |
| 12W61A0514 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 23       | 47       | 2       |
| 12W61A0514 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 22       | 45       | 2       |
| 12W61A0515 | R32026  | MANAGEMENT SCIENCE                     | 17       | 30       | 4       |
| 12W61A0515 | R32051  | ADVANCED COMPUTER NETWORKS             | 20       | 44       | 4       |
| 12W61A0515 | R32052  | COMPUTER ARCHITECTURE                  | 20       | 54       | 4       |
| 12W61A0515 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 23       | 36       | 4       |
| 12W61A0515 | R32054  | UNIX PROGRAMMING                       | 17       | 41       | 4       |
| 12W61A0515 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 20       | 42       | 4       |
| 12W61A0515 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 25       | 48       | 2       |
| 12W61A0515 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 24       | 46       | 2       |
| 12W61A0516 | R32026  | MANAGEMENT SCIENCE                     | 0        | -1       | 0       |
| 12W61A0516 | R32051  | ADVANCED COMPUTER NETWORKS             | 5        | 1        | 0       |
| 12W61A0516 | R32052  | COMPUTER ARCHITECTURE                  | 2        | -1       | 0       |
| 12W61A0516 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 4        | -1       | 0       |
| 12W61A0516 | R32054  | UNIX PROGRAMMING                       | 0        | -1       | 0       |
| 12W61A0516 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 0        | -1       | 0       |
| 12W61A0516 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 13       | -1       | 0       |
| 12W61A0516 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 12       | -1       | 0       |
| 12W61A0518 | R32026  | MANAGEMENT SCIENCE                     | 16       | 43       | 4       |
| 12W61A0518 | R32051  | ADVANCED COMPUTER NETWORKS             | 19       | 37       | 4       |
| 12W61A0518 | R32052  | COMPUTER ARCHITECTURE                  | 20       | 41       | 4       |
| 12W61A0518 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 21       | 52       | 4       |
| 12W61A0518 | R32054  | UNIX PROGRAMMING                       | 20       | 27       | 4       |
| 12W61A0518 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 21       | 17       | 0       |
| 12W61A0518 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 24       | 49       | 2       |
| 12W61A0518 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 25       | 48       | 2       |
| 12W61A0519 | R32026  | MANAGEMENT SCIENCE                     | 15       | 41       | 4       |
| 12W61A0519 | R32051  | ADVANCED COMPUTER NETWORKS             | 18       | 37       | 4       |
| 12W61A0519 | R32052  | COMPUTER ARCHITECTURE                  | 14       | 26       | 4       |
| 12W61A0519 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 22       | 15       | 0       |
| 12W61A0519 | R32054  | UNIX PROGRAMMING                       | 13       | 29       | 4       |
| 12W61A0519 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 13       | 34       | 4       |
| 12W61A0519 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 22       | 40       | 2       |
| 12W61A0519 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 20       | 40       | 2       |
| 12W61A0520 | R32026  | MANAGEMENT SCIENCE                     | 17       | 32       | 4       |
| 12W61A0520 | R32051  | ADVANCED COMPUTER NETWORKS             | 21       | 27       | 4       |
| 12W61A0520 | R32052  | COMPUTER ARCHITECTURE                  | 19       | 55       | 4       |
| 12W61A0520 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 21       | 36       | 4       |
| 12W61A0520 | R32054  | UNIX PROGRAMMING                       | 18       | 56       | 4       |

| Htno       | Subcode | Subname                                | Internal | External | credits |
|------------|---------|----------------------------------------|----------|----------|---------|
| 12W61A0520 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 20       | 57       | 4       |
| 12W61A0520 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 24       | 47       | 2       |
| 12W61A0520 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 25       | 49       | 2       |
| 12W61A0521 | R32026  | MANAGEMENT SCIENCE                     | 21       | 41       | 4       |
| 12W61A0521 | R32051  | ADVANCED COMPUTER NETWORKS             | 17       | 40       | 4       |
| 12W61A0521 | R32052  | COMPUTER ARCHITECTURE                  | 19       | 35       | 4       |
| 12W61A0521 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 20       | 44       | 4       |
| 12W61A0521 | R32054  | UNIX PROGRAMMING                       | 18       | 43       | 4       |
| 12W61A0521 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 18       | 39       | 4       |
| 12W61A0521 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 22       | 46       | 2       |
| 12W61A0521 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 21       | 38       | 2       |
| 12W61A0522 | R32026  | MANAGEMENT SCIENCE                     | 21       | 32       | 4       |
| 12W61A0522 | R32051  | ADVANCED COMPUTER NETWORKS             | 21       | 36       | 4       |
| 12W61A0522 | R32052  | COMPUTER ARCHITECTURE                  | 22       | 43       | 4       |
| 12W61A0522 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 22       | 65       | 4       |
| 12W61A0522 | R32054  | UNIX PROGRAMMING                       | 23       | 29       | 4       |
| 12W61A0522 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 22       | 35       | 4       |
| 12W61A0522 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 23       | 49       | 2       |
| 12W61A0522 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 24       | 48       | 2       |
| 12W61A0523 | R32026  | MANAGEMENT SCIENCE                     | 24       | 43       | 4       |
| 12W61A0523 | R32051  | ADVANCED COMPUTER NETWORKS             | 20       | 36       | 4       |
| 12W61A0523 | R32052  | COMPUTER ARCHITECTURE                  | 23       | 47       | 4       |
| 12W61A0523 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 24       | 41       | 4       |
| 12W61A0523 | R32054  | UNIX PROGRAMMING                       | 19       | 32       | 4       |
| 12W61A0523 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 23       | 42       | 4       |
| 12W61A0523 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 23       | 47       | 2       |
| 12W61A0523 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 22       | 46       | 2       |
| 12W61A0524 | R32026  | MANAGEMENT SCIENCE                     | 17       | 37       | 4       |
| 12W61A0524 | R32051  | ADVANCED COMPUTER NETWORKS             | 17       | 36       | 4       |
| 12W61A0524 | R32052  | COMPUTER ARCHITECTURE                  | 16       | 49       | 4       |
| 12W61A0524 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 22       | 38       | 4       |
| 12W61A0524 | R32054  | UNIX PROGRAMMING                       | 19       | 34       | 4       |
| 12W61A0524 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 20       | 60       | 4       |
| 12W61A0524 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 24       | 46       | 2       |
| 12W61A0524 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 24       | 47       | 2       |
| 12W61A0525 | R32026  | MANAGEMENT SCIENCE                     | 19       | 48       | 4       |
| 12W61A0525 | R32051  | ADVANCED COMPUTER NETWORKS             | 19       | 50       | 4       |
| 12W61A0525 | R32052  | COMPUTER ARCHITECTURE                  | 17       | 30       | 4       |
| 12W61A0525 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 19       | 43       | 4       |
| 12W61A0525 | R32054  | UNIX PROGRAMMING                       | 15       | 47       | 4       |
| 12W61A0525 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 20       | 38       | 4       |
| 12W61A0525 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 22       | 43       | 2       |
| 12W61A0525 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 22       | 45       | 2       |
| 12W61A0526 | R32026  | MANAGEMENT SCIENCE                     | 14       | 34       | 4       |
| 12W61A0526 | R32051  | ADVANCED COMPUTER NETWORKS             | 20       | 15       | 0       |
| 12W61A0526 | R32052  | COMPUTER ARCHITECTURE                  | 14       | 28       | 4       |
| 12W61A0526 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 17       | 27       | 4       |
| 12W61A0526 | R32054  | UNIX PROGRAMMING                       | 16       | 28       | 4       |
| 12W61A0526 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 17       | 15       | 0       |
| 12W61A0526 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 22       | 44       | 2       |
| 12W61A0526 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 18       | 38       | 2       |



| Htno       | Subcode | Subname                                | Internal | External | credits |
|------------|---------|----------------------------------------|----------|----------|---------|
| 12W61A0527 | R32026  | MANAGEMENT SCIENCE                     | 19       | 48       | 4       |
| 12W61A0527 | R32051  | ADVANCED COMPUTER NETWORKS             | 16       | 43       | 4       |
| 12W61A0527 | R32052  | COMPUTER ARCHITECTURE                  | 17       | 36       | 4       |
| 12W61A0527 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 21       | 40       | 4       |
| 12W61A0527 | R32054  | UNIX PROGRAMMING                       | 20       | 26       | 4       |
| 12W61A0527 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 19       | 52       | 4       |
| 12W61A0527 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 23       | 47       | 2       |
| 12W61A0527 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 24       | 50       | 2       |
| 12W61A0529 | R32026  | MANAGEMENT SCIENCE                     | 0        | 20       | 0       |
| 12W61A0529 | R32051  | ADVANCED COMPUTER NETWORKS             | 18       | 34       | 4       |
| 12W61A0529 | R32052  | COMPUTER ARCHITECTURE                  | 0        | 44       | 4       |
| 12W61A0529 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 0        | 3        | 0       |
| 12W61A0529 | R32054  | UNIX PROGRAMMING                       | 0        | 41       | 4       |
| 12W61A0529 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 0        | 40       | 4       |
| 12W61A0529 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 13       | -1       | 0       |
| 12W61A0529 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 12       | -1       | 0       |
| 12W61A0530 | R32026  | MANAGEMENT SCIENCE                     | 18       | 47       | 4       |
| 12W61A0530 | R32051  | ADVANCED COMPUTER NETWORKS             | 21       | 36       | 4       |
| 12W61A0530 | R32052  | COMPUTER ARCHITECTURE                  | 19       | 35       | 4       |
| 12W61A0530 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 21       | 38       | 4       |
| 12W61A0530 | R32054  | UNIX PROGRAMMING                       | 19       | 43       | 4       |
| 12W61A0530 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 17       | 37       | 4       |
| 12W61A0530 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 24       | 49       | 2       |
| 12W61A0530 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 24       | 45       | 2       |
| 12W61A0531 | R32026  | MANAGEMENT SCIENCE                     | 15       | 26       | 4       |
| 12W61A0531 | R32051  | ADVANCED COMPUTER NETWORKS             | 17       | 31       | 4       |
| 12W61A0531 | R32052  | COMPUTER ARCHITECTURE                  | 18       | 40       | 4       |
| 12W61A0531 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 20       | 28       | 4       |
| 12W61A0531 | R32054  | UNIX PROGRAMMING                       | 15       | 28       | 4       |
| 12W61A0531 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 18       | 17       | 0       |
| 12W61A0531 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 22       | 44       | 2       |
| 12W61A0531 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 21       | 45       | 2       |
| 12W61A0534 | R32026  | MANAGEMENT SCIENCE                     | 13       | 39       | 4       |
| 12W61A0534 | R32051  | ADVANCED COMPUTER NETWORKS             | 17       | 37       | 4       |
| 12W61A0534 | R32052  | COMPUTER ARCHITECTURE                  | 14       | 35       | 4       |
| 12W61A0534 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 19       | 30       | 4       |
| 12W61A0534 | R32054  | UNIX PROGRAMMING                       | 17       | 30       | 4       |
| 12W61A0534 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 15       | 34       | 4       |
| 12W61A0534 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 22       | 45       | 2       |
| 12W61A0534 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 22       | 45       | 2       |
| 12W61A0535 | R32026  | MANAGEMENT SCIENCE                     | 25       | 37       | 4       |
| 12W61A0535 | R32051  | ADVANCED COMPUTER NETWORKS             | 22       | 48       | 4       |
| 12W61A0535 | R32052  | COMPUTER ARCHITECTURE                  | 23       | 52       | 4       |
| 12W61A0535 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 25       | 37       | 4       |
| 12W61A0535 | R32054  | UNIX PROGRAMMING                       | 22       | 57       | 4       |
| 12W61A0535 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 24       | 68       | 4       |
| 12W61A0535 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 24       | 50       | 2       |
| 12W61A0535 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 24       | 49       | 2       |
| 12W61A0536 | R32026  | MANAGEMENT SCIENCE                     | 17       | 54       | 4       |
| 12W61A0536 | R32051  | ADVANCED COMPUTER NETWORKS             | 16       | 52       | 4       |
| 12W61A0536 | R32052  | COMPUTER ARCHITECTURE                  | 24       | 36       | 4       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 12W61A0536 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS           | 21       | 53       | 4       |
| 12W61A0536 | R32054  | UNIX PROGRAMMING                            | 19       | 53       | 4       |
| 12W61A0536 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES          | 19       | 56       | 4       |
| 12W61A0536 | R32057  | COMPUTER NETWORKS AND UNIX LAB              | 23       | 48       | 2       |
| 12W61A0536 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB      | 22       | 46       | 2       |
| 12W65A0106 | R32012  | WATER AND WASTEWATER ENGINEERING            | 16       | 56       | 4       |
| 12W65A0205 | R32021  | ELECTRICAL MACHINE DESIGN                   | 19       | 36       | 4       |
| 12W65A0208 | R32021  | ELECTRICAL MACHINE DESIGN                   | 17       | 34       | 4       |
| 12W65A0211 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 9        | 4        | 0       |
| 12W65A0212 | R32026  | MANAGEMENT SCIENCE                          | 19       | 20       | 0       |
| 12W65A0215 | R32026  | MANAGEMENT SCIENCE                          | 19       | 30       | 4       |
| 12W65A0309 | R32031  | METROLOGY                                   | 19       | 38       | 4       |
| 12W65A0309 | R32032  | ROBOTICS                                    | 19       | 18       | 0       |
| 12W65A0309 | R32033  | HEAT TRANSFER                               | 16       | 28       | 4       |
| 12W65A0309 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS           | 19       | 26       | 4       |
| 12W65A0309 | R32035  | DESIGN OF MACHINE MEMBERS_II                | 12       | 48       | 4       |
| 12W65A0309 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT               | 20       | 29       | 4       |
| 12W65A0309 | R32037  | METROLOGY & INSTRUMENTATION LAB             | 16       | 36       | 2       |
| 12W65A0309 | R32038  | HEAT TRANSFER LAB                           | 11       | 32       | 2       |
| 12W65A0401 | R32045  | VLSI DESIGN                                 | 19       | -1       | 0       |
| 12W65A0405 | R32042  | MICROWAVE ENGINEERING                       | 15       | 18       | 0       |
| 12W65A0407 | R32045  | VLSI DESIGN                                 | 18       | 26       | 4       |
| 12W65A0411 | R32043  | DIGITAL SIGNAL PROCESSING                   | 13       | 33       | 4       |
| 12W65A0411 | R32045  | VLSI DESIGN                                 | 14       | 39       | 4       |
| 12W65A0412 | R32042  | MICROWAVE ENGINEERING                       | 20       | 3        | 0       |
| 12W65A0412 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS       | 20       | 39       | 4       |
| 12W65A0422 | R32042  | MICROWAVE ENGINEERING                       | 21       | 41       | 4       |
| 12W65A0422 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS       | 20       | 12       | 0       |
| 12W65A0422 | R32045  | VLSI DESIGN                                 | 20       | -1       | 0       |
| 13W65A0101 | R32011  | GEOTECHNICAL ENGINEERING - I                | 14       | 26       | 4       |
| 13W65A0101 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 45       | 4       |
| 13W65A0101 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 13       | 30       | 4       |
| 13W65A0101 | R32014  | WATER RESOURCES ENGINEERING-II              | 11       | 19       | 0       |
| 13W65A0101 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 21       | 39       | 4       |
| 13W65A0101 | R32016  | TRANSPORTATION ENGINEERING-II               | 13       | 6        | 0       |
| 13W65A0101 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 47       | 2       |
| 13W65A0101 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 45       | 2       |
| 13W65A0102 | R32011  | GEOTECHNICAL ENGINEERING - I                | 14       | 35       | 4       |
| 13W65A0102 | R32012  | WATER AND WASTEWATER ENGINEERING            | 12       | 42       | 4       |
| 13W65A0102 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 18       | 53       | 4       |
| 13W65A0102 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 37       | 4       |
| 13W65A0102 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 68       | 4       |
| 13W65A0102 | R32016  | TRANSPORTATION ENGINEERING-II               | 15       | 37       | 4       |
| 13W65A0102 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 47       | 2       |
| 13W65A0102 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 44       | 2       |
| 13W65A0103 | R32011  | GEOTECHNICAL ENGINEERING - I                | 18       | 38       | 4       |
| 13W65A0103 | R32012  | WATER AND WASTEWATER ENGINEERING            | 15       | 61       | 4       |
| 13W65A0103 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 21       | 53       | 4       |
| 13W65A0103 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 41       | 4       |
| 13W65A0103 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 61       | 4       |
| 13W65A0103 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 42       | 4       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 13W65A0103 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 23       | 47       | 2       |
| 13W65A0103 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 42       | 2       |
| 13W65A0104 | R32011  | GEOTECHNICAL ENGINEERING - I                | 16       | 38       | 4       |
| 13W65A0104 | R32012  | WATER AND WASTEWATER ENGINEERING            | 15       | 58       | 4       |
| 13W65A0104 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 32       | 4       |
| 13W65A0104 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 61       | 4       |
| 13W65A0104 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 50       | 4       |
| 13W65A0104 | R32016  | TRANSPORTATION ENGINEERING-II               | 10       | 47       | 4       |
| 13W65A0104 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 45       | 2       |
| 13W65A0104 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 43       | 2       |
| 13W65A0105 | R32011  | GEOTECHNICAL ENGINEERING - I                | 15       | 37       | 4       |
| 13W65A0105 | R32012  | WATER AND WASTEWATER ENGINEERING            | 12       | 59       | 4       |
| 13W65A0105 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 0        | 27       | 0       |
| 13W65A0105 | R32014  | WATER RESOURCES ENGINEERING-II              | 11       | 41       | 4       |
| 13W65A0105 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 21       | 33       | 4       |
| 13W65A0105 | R32016  | TRANSPORTATION ENGINEERING-II               | 11       | 6        | 0       |
| 13W65A0105 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 23       | 47       | 2       |
| 13W65A0105 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 40       | 2       |
| 13W65A0106 | R32011  | GEOTECHNICAL ENGINEERING - I                | 20       | 42       | 4       |
| 13W65A0106 | R32012  | WATER AND WASTEWATER ENGINEERING            | 19       | 43       | 4       |
| 13W65A0106 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 21       | 38       | 4       |
| 13W65A0106 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 47       | 4       |
| 13W65A0106 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 72       | 4       |
| 13W65A0106 | R32016  | TRANSPORTATION ENGINEERING-II               | 16       | 42       | 4       |
| 13W65A0106 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 48       | 2       |
| 13W65A0106 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 47       | 2       |
| 13W65A0107 | R32011  | GEOTECHNICAL ENGINEERING - I                | 20       | 72       | 4       |
| 13W65A0107 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 54       | 4       |
| 13W65A0107 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 0        | 66       | 4       |
| 13W65A0107 | R32014  | WATER RESOURCES ENGINEERING-II              | 16       | 38       | 4       |
| 13W65A0107 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 24       | 58       | 4       |
| 13W65A0107 | R32016  | TRANSPORTATION ENGINEERING-II               | 15       | 27       | 4       |
| 13W65A0107 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 49       | 2       |
| 13W65A0107 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 44       | 2       |
| 13W65A0108 | R32011  | GEOTECHNICAL ENGINEERING - I                | 17       | 45       | 4       |
| 13W65A0108 | R32012  | WATER AND WASTEWATER ENGINEERING            | 16       | 45       | 4       |
| 13W65A0108 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 20       | 41       | 4       |
| 13W65A0108 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 46       | 4       |
| 13W65A0108 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 22       | 38       | 4       |
| 13W65A0108 | R32016  | TRANSPORTATION ENGINEERING-II               | 11       | 31       | 4       |
| 13W65A0108 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 47       | 2       |
| 13W65A0108 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 42       | 2       |
| 13W65A0109 | R32011  | GEOTECHNICAL ENGINEERING - I                | 20       | 32       | 4       |
| 13W65A0109 | R32012  | WATER AND WASTEWATER ENGINEERING            | 17       | 57       | 4       |
| 13W65A0109 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 19       | 45       | 4       |
| 13W65A0109 | R32014  | WATER RESOURCES ENGINEERING-II              | 14       | 42       | 4       |
| 13W65A0109 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 20       | 52       | 4       |
| 13W65A0109 | R32016  | TRANSPORTATION ENGINEERING-II               | 15       | 32       | 4       |
| 13W65A0109 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 48       | 2       |
| 13W65A0109 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 43       | 2       |
| 13W65A0110 | R32011  | GEOTECHNICAL ENGINEERING - I                | 15       | 36       | 4       |

| Htno       | Subcode | Subname                                     | Internal | External | credits |
|------------|---------|---------------------------------------------|----------|----------|---------|
| 13W65A0110 | R32012  | WATER AND WASTEWATER ENGINEERING            | 13       | 51       | 4       |
| 13W65A0110 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 17       | 59       | 4       |
| 13W65A0110 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 44       | 4       |
| 13W65A0110 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 22       | 56       | 4       |
| 13W65A0110 | R32016  | TRANSPORTATION ENGINEERING-II               | 18       | 33       | 4       |
| 13W65A0110 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 22       | 45       | 2       |
| 13W65A0110 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 43       | 2       |
| 13W65A0111 | R32011  | GEOTECHNICAL ENGINEERING - I                | 10       | 14       | 0       |
| 13W65A0111 | R32012  | WATER AND WASTEWATER ENGINEERING            | 12       | 3        | 0       |
| 13W65A0111 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 17       | 53       | 4       |
| 13W65A0111 | R32014  | WATER RESOURCES ENGINEERING-II              | 15       | 44       | 4       |
| 13W65A0111 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 22       | 53       | 4       |
| 13W65A0111 | R32016  | TRANSPORTATION ENGINEERING-II               | 15       | 37       | 4       |
| 13W65A0111 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 17       | 43       | 2       |
| 13W65A0111 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 46       | 2       |
| 13W65A0112 | R32011  | GEOTECHNICAL ENGINEERING - I                | 19       | 47       | 4       |
| 13W65A0112 | R32012  | WATER AND WASTEWATER ENGINEERING            | 19       | 56       | 4       |
| 13W65A0112 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 16       | 42       | 4       |
| 13W65A0112 | R32014  | WATER RESOURCES ENGINEERING-II              | 19       | 64       | 4       |
| 13W65A0112 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 28       | 4       |
| 13W65A0112 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 43       | 4       |
| 13W65A0112 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 25       | 50       | 2       |
| 13W65A0112 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 45       | 2       |
| 13W65A0113 | R32011  | GEOTECHNICAL ENGINEERING - I                | 21       | 36       | 4       |
| 13W65A0113 | R32012  | WATER AND WASTEWATER ENGINEERING            | 21       | 64       | 4       |
| 13W65A0113 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 22       | 45       | 4       |
| 13W65A0113 | R32014  | WATER RESOURCES ENGINEERING-II              | 17       | 42       | 4       |
| 13W65A0113 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 25       | 58       | 4       |
| 13W65A0113 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 48       | 4       |
| 13W65A0113 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 24       | 49       | 2       |
| 13W65A0113 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 45       | 2       |
| 13W65A0115 | R32011  | GEOTECHNICAL ENGINEERING - I                | 14       | 36       | 4       |
| 13W65A0115 | R32012  | WATER AND WASTEWATER ENGINEERING            | 10       | 37       | 4       |
| 13W65A0115 | R32013  | DESIGN & DRAWING OF STEEL STRUCTURES        | 0        | 26       | 0       |
| 13W65A0115 | R32014  | WATER RESOURCES ENGINEERING-II              | 13       | 33       | 4       |
| 13W65A0115 | R32015  | DESIGN & DRAWING OF CONCRETE STRUCTURES -II | 23       | 37       | 4       |
| 13W65A0115 | R32016  | TRANSPORTATION ENGINEERING-II               | 17       | 38       | 4       |
| 13W65A0115 | R32017  | GEOTECHNICAL ENGINEERING LAB                | 21       | 46       | 2       |
| 13W65A0115 | R32018  | TRANSPORTATION ENGINEERING LAB              | 23       | 43       | 2       |
| 13W65A0201 | R32021  | ELECTRICAL MACHINE DESIGN                   | 21       | 29       | 4       |
| 13W65A0201 | R32022  | POWER SYSTEM ANALYSIS                       | 14       | 40       | 4       |
| 13W65A0201 | R32023  | UTILIZATION OF ELECTRICAL ENERGY            | 18       | 31       | 4       |
| 13W65A0201 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 17       | 74       | 4       |
| 13W65A0201 | R32025  | POWER SEMICONDUCTOR DRIVES                  | 21       | 29       | 4       |
| 13W65A0201 | R32026  | MANAGEMENT SCIENCE                          | 17       | 45       | 4       |
| 13W65A0201 | R32027  | POWER ELECTRONICS LAB                       | 21       | 42       | 2       |
| 13W65A0201 | R32028  | ELECTRICAL MEASUREMENTS LAB                 | 21       | 43       | 2       |
| 13W65A0202 | R32021  | ELECTRICAL MACHINE DESIGN                   | 22       | 26       | 4       |
| 13W65A0202 | R32022  | POWER SYSTEM ANALYSIS                       | 16       | 28       | 4       |
| 13W65A0202 | R32023  | UTILIZATION OF ELECTRICAL ENERGY            | 19       | 43       | 4       |
| 13W65A0202 | R32024  | MICROPROCESSORS AND MICROCONTROLLER         | 13       | 28       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 13W65A0202 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 12       | 0       |
| 13W65A0202 | R32026  | MANAGEMENT SCIENCE                  | 12       | 38       | 4       |
| 13W65A0202 | R32027  | POWER ELECTRONICS LAB               | 20       | 39       | 2       |
| 13W65A0202 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 18       | 42       | 2       |
| 13W65A0203 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 29       | 4       |
| 13W65A0203 | R32022  | POWER SYSTEM ANALYSIS               | 16       | 48       | 4       |
| 13W65A0203 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 42       | 4       |
| 13W65A0203 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 16       | 41       | 4       |
| 13W65A0203 | R32025  | POWER SEMICONDUCTOR DRIVES          | 23       | 37       | 4       |
| 13W65A0203 | R32026  | MANAGEMENT SCIENCE                  | 17       | 55       | 4       |
| 13W65A0203 | R32027  | POWER ELECTRONICS LAB               | 22       | 48       | 2       |
| 13W65A0203 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 48       | 2       |
| 13W65A0204 | R32021  | ELECTRICAL MACHINE DESIGN           | 17       | 32       | 4       |
| 13W65A0204 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 9        | 0       |
| 13W65A0204 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 42       | 4       |
| 13W65A0204 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 6        | 0        | 0       |
| 13W65A0204 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 35       | 4       |
| 13W65A0204 | R32026  | MANAGEMENT SCIENCE                  | 14       | 30       | 4       |
| 13W65A0204 | R32027  | POWER ELECTRONICS LAB               | 22       | 0        | 0       |
| 13W65A0204 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 42       | 2       |
| 13W65A0205 | R32021  | ELECTRICAL MACHINE DESIGN           | 15       | 27       | 4       |
| 13W65A0205 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 12       | 0       |
| 13W65A0205 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 17       | 33       | 4       |
| 13W65A0205 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 12       | 29       | 4       |
| 13W65A0205 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 15       | 0       |
| 13W65A0205 | R32026  | MANAGEMENT SCIENCE                  | 12       | 46       | 4       |
| 13W65A0205 | R32027  | POWER ELECTRONICS LAB               | 21       | 43       | 2       |
| 13W65A0205 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 42       | 2       |
| 13W65A0206 | R32021  | ELECTRICAL MACHINE DESIGN           | 13       | 42       | 4       |
| 13W65A0206 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 35       | 4       |
| 13W65A0206 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 34       | 4       |
| 13W65A0206 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 52       | 4       |
| 13W65A0206 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 28       | 4       |
| 13W65A0206 | R32026  | MANAGEMENT SCIENCE                  | 14       | 42       | 4       |
| 13W65A0206 | R32027  | POWER ELECTRONICS LAB               | 21       | 44       | 2       |
| 13W65A0206 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 20       | 46       | 2       |
| 13W65A0207 | R32021  | ELECTRICAL MACHINE DESIGN           | 23       | 39       | 4       |
| 13W65A0207 | R32022  | POWER SYSTEM ANALYSIS               | 24       | 33       | 4       |
| 13W65A0207 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 23       | 49       | 4       |
| 13W65A0207 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 24       | 44       | 4       |
| 13W65A0207 | R32025  | POWER SEMICONDUCTOR DRIVES          | 24       | 38       | 4       |
| 13W65A0207 | R32026  | MANAGEMENT SCIENCE                  | 21       | 52       | 4       |
| 13W65A0207 | R32027  | POWER ELECTRONICS LAB               | 24       | 48       | 2       |
| 13W65A0207 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 50       | 2       |
| 13W65A0211 | R32021  | ELECTRICAL MACHINE DESIGN           | 13       | 33       | 4       |
| 13W65A0211 | R32022  | POWER SYSTEM ANALYSIS               | 13       | 35       | 4       |
| 13W65A0211 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 36       | 4       |
| 13W65A0211 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 18       | 14       | 0       |
| 13W65A0211 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 26       | 4       |
| 13W65A0211 | R32026  | MANAGEMENT SCIENCE                  | 14       | 33       | 4       |
| 13W65A0211 | R32027  | POWER ELECTRONICS LAB               | 21       | 40       | 2       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 13W65A0211 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 45       | 2       |
| 13W65A0212 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 35       | 4       |
| 13W65A0212 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 26       | 4       |
| 13W65A0212 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 45       | 4       |
| 13W65A0212 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 8        | 0       |
| 13W65A0212 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 28       | 4       |
| 13W65A0212 | R32026  | MANAGEMENT SCIENCE                  | 18       | 36       | 4       |
| 13W65A0212 | R32027  | POWER ELECTRONICS LAB               | 20       | 39       | 2       |
| 13W65A0212 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 45       | 2       |
| 13W65A0213 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 26       | 4       |
| 13W65A0213 | R32022  | POWER SYSTEM ANALYSIS               | 24       | 29       | 4       |
| 13W65A0213 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 47       | 4       |
| 13W65A0213 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 23       | 47       | 4       |
| 13W65A0213 | R32025  | POWER SEMICONDUCTOR DRIVES          | 23       | 40       | 4       |
| 13W65A0213 | R32026  | MANAGEMENT SCIENCE                  | 21       | 39       | 4       |
| 13W65A0213 | R32027  | POWER ELECTRONICS LAB               | 23       | 44       | 2       |
| 13W65A0213 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 48       | 2       |
| 13W65A0214 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 31       | 4       |
| 13W65A0214 | R32022  | POWER SYSTEM ANALYSIS               | 14       | 0        | 0       |
| 13W65A0214 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 37       | 4       |
| 13W65A0214 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 16       | 35       | 4       |
| 13W65A0214 | R32025  | POWER SEMICONDUCTOR DRIVES          | 21       | 26       | 4       |
| 13W65A0214 | R32026  | MANAGEMENT SCIENCE                  | 18       | 50       | 4       |
| 13W65A0214 | R32027  | POWER ELECTRONICS LAB               | 19       | 38       | 2       |
| 13W65A0214 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 43       | 2       |
| 13W65A0215 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 40       | 4       |
| 13W65A0215 | R32022  | POWER SYSTEM ANALYSIS               | 16       | 50       | 4       |
| 13W65A0215 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 19       | 54       | 4       |
| 13W65A0215 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 13       | 28       | 4       |
| 13W65A0215 | R32025  | POWER SEMICONDUCTOR DRIVES          | 23       | 39       | 4       |
| 13W65A0215 | R32026  | MANAGEMENT SCIENCE                  | 22       | 40       | 4       |
| 13W65A0215 | R32027  | POWER ELECTRONICS LAB               | 21       | 41       | 2       |
| 13W65A0215 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 45       | 2       |
| 13W65A0216 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 39       | 4       |
| 13W65A0216 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 32       | 4       |
| 13W65A0216 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 48       | 4       |
| 13W65A0216 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 17       | 40       | 4       |
| 13W65A0216 | R32025  | POWER SEMICONDUCTOR DRIVES          | 23       | 32       | 4       |
| 13W65A0216 | R32026  | MANAGEMENT SCIENCE                  | 22       | 40       | 4       |
| 13W65A0216 | R32027  | POWER ELECTRONICS LAB               | 22       | 40       | 2       |
| 13W65A0216 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 44       | 2       |
| 13W65A0217 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 29       | 4       |
| 13W65A0217 | R32022  | POWER SYSTEM ANALYSIS               | 21       | 39       | 4       |
| 13W65A0217 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 24       | 55       | 4       |
| 13W65A0217 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 20       | 57       | 4       |
| 13W65A0217 | R32025  | POWER SEMICONDUCTOR DRIVES          | 23       | 41       | 4       |
| 13W65A0217 | R32026  | MANAGEMENT SCIENCE                  | 20       | 40       | 4       |
| 13W65A0217 | R32027  | POWER ELECTRONICS LAB               | 23       | 44       | 2       |
| 13W65A0217 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 45       | 2       |
| 13W65A0219 | R32021  | ELECTRICAL MACHINE DESIGN           | 18       | 36       | 4       |
| 13W65A0219 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 38       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 13W65A0219 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 26       | 4       |
| 13W65A0219 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 10       | 17       | 0       |
| 13W65A0219 | R32025  | POWER SEMICONDUCTOR DRIVES          | 17       | 26       | 4       |
| 13W65A0219 | R32026  | MANAGEMENT SCIENCE                  | 17       | 46       | 4       |
| 13W65A0219 | R32027  | POWER ELECTRONICS LAB               | 22       | 43       | 2       |
| 13W65A0219 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 43       | 2       |
| 13W65A0220 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 48       | 4       |
| 13W65A0220 | R32022  | POWER SYSTEM ANALYSIS               | 22       | 35       | 4       |
| 13W65A0220 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 24       | 55       | 4       |
| 13W65A0220 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 19       | 37       | 4       |
| 13W65A0220 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 42       | 4       |
| 13W65A0220 | R32026  | MANAGEMENT SCIENCE                  | 15       | 40       | 4       |
| 13W65A0220 | R32027  | POWER ELECTRONICS LAB               | 23       | 45       | 2       |
| 13W65A0220 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 47       | 2       |
| 13W65A0221 | R32021  | ELECTRICAL MACHINE DESIGN           | 15       | 25       | 0       |
| 13W65A0221 | R32022  | POWER SYSTEM ANALYSIS               | 16       | 11       | 0       |
| 13W65A0221 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 14       | 0       |
| 13W65A0221 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 8        | 16       | 0       |
| 13W65A0221 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 17       | 0       |
| 13W65A0221 | R32026  | MANAGEMENT SCIENCE                  | 14       | 21       | 0       |
| 13W65A0221 | R32027  | POWER ELECTRONICS LAB               | 19       | 36       | 2       |
| 13W65A0221 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 45       | 2       |
| 13W65A0222 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 30       | 4       |
| 13W65A0222 | R32022  | POWER SYSTEM ANALYSIS               | 14       | 33       | 4       |
| 13W65A0222 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 37       | 4       |
| 13W65A0222 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 17       | 41       | 4       |
| 13W65A0222 | R32025  | POWER SEMICONDUCTOR DRIVES          | 17       | 8        | 0       |
| 13W65A0222 | R32026  | MANAGEMENT SCIENCE                  | 16       | 38       | 4       |
| 13W65A0222 | R32027  | POWER ELECTRONICS LAB               | 21       | 37       | 2       |
| 13W65A0222 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 45       | 2       |
| 13W65A0223 | R32021  | ELECTRICAL MACHINE DESIGN           | 23       | 40       | 4       |
| 13W65A0223 | R32022  | POWER SYSTEM ANALYSIS               | 23       | 37       | 4       |
| 13W65A0223 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 42       | 4       |
| 13W65A0223 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 16       | 34       | 4       |
| 13W65A0223 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 29       | 4       |
| 13W65A0223 | R32026  | MANAGEMENT SCIENCE                  | 19       | 34       | 4       |
| 13W65A0223 | R32027  | POWER ELECTRONICS LAB               | 21       | 40       | 2       |
| 13W65A0223 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 45       | 2       |
| 13W65A0224 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 41       | 4       |
| 13W65A0224 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 34       | 4       |
| 13W65A0224 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 24       | 55       | 4       |
| 13W65A0224 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 20       | 42       | 4       |
| 13W65A0224 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 47       | 4       |
| 13W65A0224 | R32026  | MANAGEMENT SCIENCE                  | 21       | 31       | 4       |
| 13W65A0224 | R32027  | POWER ELECTRONICS LAB               | 24       | 47       | 2       |
| 13W65A0224 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 46       | 2       |
| 13W65A0225 | R32021  | ELECTRICAL MACHINE DESIGN           | 16       | 27       | 4       |
| 13W65A0225 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 32       | 4       |
| 13W65A0225 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 13       | 45       | 4       |
| 13W65A0225 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 19       | 60       | 4       |
| 13W65A0225 | R32025  | POWER SEMICONDUCTOR DRIVES          | 21       | 31       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 13W65A0225 | R32026  | MANAGEMENT SCIENCE                  | 17       | 45       | 4       |
| 13W65A0225 | R32027  | POWER ELECTRONICS LAB               | 22       | 43       | 2       |
| 13W65A0225 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 42       | 2       |
| 13W65A0226 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 27       | 4       |
| 13W65A0226 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 28       | 4       |
| 13W65A0226 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 18       | 35       | 4       |
| 13W65A0226 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 16       | 41       | 4       |
| 13W65A0226 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 11       | 0       |
| 13W65A0226 | R32026  | MANAGEMENT SCIENCE                  | 17       | 38       | 4       |
| 13W65A0226 | R32027  | POWER ELECTRONICS LAB               | 20       | 28       | 2       |
| 13W65A0226 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 45       | 2       |
| 13W65A0228 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 42       | 4       |
| 13W65A0228 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 26       | 4       |
| 13W65A0228 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 23       | 44       | 4       |
| 13W65A0228 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 37       | 4       |
| 13W65A0228 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | 31       | 4       |
| 13W65A0228 | R32026  | MANAGEMENT SCIENCE                  | 17       | 42       | 4       |
| 13W65A0228 | R32027  | POWER ELECTRONICS LAB               | 22       | 42       | 2       |
| 13W65A0228 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 46       | 2       |
| 13W65A0229 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 39       | 4       |
| 13W65A0229 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 12       | 0       |
| 13W65A0229 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 19       | 47       | 4       |
| 13W65A0229 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 27       | 4       |
| 13W65A0229 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 31       | 4       |
| 13W65A0229 | R32026  | MANAGEMENT SCIENCE                  | 16       | 27       | 4       |
| 13W65A0229 | R32027  | POWER ELECTRONICS LAB               | 23       | 43       | 2       |
| 13W65A0229 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 43       | 2       |
| 13W65A0230 | R32021  | ELECTRICAL MACHINE DESIGN           | 16       | 28       | 4       |
| 13W65A0230 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 12       | 0       |
| 13W65A0230 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 19       | 31       | 4       |
| 13W65A0230 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 17       | 58       | 4       |
| 13W65A0230 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 29       | 4       |
| 13W65A0230 | R32026  | MANAGEMENT SCIENCE                  | 15       | 39       | 4       |
| 13W65A0230 | R32027  | POWER ELECTRONICS LAB               | 22       | 41       | 2       |
| 13W65A0230 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 42       | 2       |
| 13W65A0231 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 26       | 4       |
| 13W65A0231 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 38       | 4       |
| 13W65A0231 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 46       | 4       |
| 13W65A0231 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 19       | 50       | 4       |
| 13W65A0231 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 6        | 0       |
| 13W65A0231 | R32026  | MANAGEMENT SCIENCE                  | 18       | 37       | 4       |
| 13W65A0231 | R32027  | POWER ELECTRONICS LAB               | 23       | 42       | 2       |
| 13W65A0231 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 21       | 44       | 2       |
| 13W65A0232 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 39       | 4       |
| 13W65A0232 | R32022  | POWER SYSTEM ANALYSIS               | 13       | 27       | 4       |
| 13W65A0232 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 37       | 4       |
| 13W65A0232 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 33       | 4       |
| 13W65A0232 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 30       | 4       |
| 13W65A0232 | R32026  | MANAGEMENT SCIENCE                  | 18       | 38       | 4       |
| 13W65A0232 | R32027  | POWER ELECTRONICS LAB               | 23       | 44       | 2       |
| 13W65A0232 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 42       | 2       |



| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 13W65A0233 | R32021  | ELECTRICAL MACHINE DESIGN           | 12       | 15       | 0       |
| 13W65A0233 | R32022  | POWER SYSTEM ANALYSIS               | 14       | 19       | 0       |
| 13W65A0233 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 15       | 26       | 4       |
| 13W65A0233 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 10       | 16       | 0       |
| 13W65A0233 | R32025  | POWER SEMICONDUCTOR DRIVES          | 11       | 15       | 0       |
| 13W65A0233 | R32026  | MANAGEMENT SCIENCE                  | 16       | 29       | 4       |
| 13W65A0233 | R32027  | POWER ELECTRONICS LAB               | 21       | 38       | 2       |
| 13W65A0233 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 41       | 2       |
| 13W65A0234 | R32021  | ELECTRICAL MACHINE DESIGN           | 16       | 26       | 4       |
| 13W65A0234 | R32022  | POWER SYSTEM ANALYSIS               | 13       | 30       | 4       |
| 13W65A0234 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 46       | 4       |
| 13W65A0234 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 47       | 4       |
| 13W65A0234 | R32025  | POWER SEMICONDUCTOR DRIVES          | 17       | 29       | 4       |
| 13W65A0234 | R32026  | MANAGEMENT SCIENCE                  | 14       | 39       | 4       |
| 13W65A0234 | R32027  | POWER ELECTRONICS LAB               | 21       | 42       | 2       |
| 13W65A0234 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 44       | 2       |
| 13W65A0236 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 50       | 4       |
| 13W65A0236 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 29       | 4       |
| 13W65A0236 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 42       | 4       |
| 13W65A0236 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 22       | 52       | 4       |
| 13W65A0236 | R32025  | POWER SEMICONDUCTOR DRIVES          | 23       | 14       | 0       |
| 13W65A0236 | R32026  | MANAGEMENT SCIENCE                  | 19       | 38       | 4       |
| 13W65A0236 | R32027  | POWER ELECTRONICS LAB               | 23       | 43       | 2       |
| 13W65A0236 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 46       | 2       |
| 13W65A0237 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 39       | 4       |
| 13W65A0237 | R32022  | POWER SYSTEM ANALYSIS               | 23       | 26       | 4       |
| 13W65A0237 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 24       | 41       | 4       |
| 13W65A0237 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 19       | 33       | 4       |
| 13W65A0237 | R32025  | POWER SEMICONDUCTOR DRIVES          | 24       | 26       | 4       |
| 13W65A0237 | R32026  | MANAGEMENT SCIENCE                  | 18       | 30       | 4       |
| 13W65A0237 | R32027  | POWER ELECTRONICS LAB               | 24       | 43       | 2       |
| 13W65A0237 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 43       | 2       |
| 13W65A0238 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 26       | 4       |
| 13W65A0238 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 30       | 4       |
| 13W65A0238 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 41       | 4       |
| 13W65A0238 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 21       | 31       | 4       |
| 13W65A0238 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 26       | 4       |
| 13W65A0238 | R32026  | MANAGEMENT SCIENCE                  | 18       | 36       | 4       |
| 13W65A0238 | R32027  | POWER ELECTRONICS LAB               | 24       | 41       | 2       |
| 13W65A0238 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 43       | 2       |
| 13W65A0239 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 49       | 4       |
| 13W65A0239 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 37       | 4       |
| 13W65A0239 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 46       | 4       |
| 13W65A0239 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 19       | 63       | 4       |
| 13W65A0239 | R32025  | POWER SEMICONDUCTOR DRIVES          | 22       | 39       | 4       |
| 13W65A0239 | R32026  | MANAGEMENT SCIENCE                  | 19       | 41       | 4       |
| 13W65A0239 | R32027  | POWER ELECTRONICS LAB               | 23       | 45       | 2       |
| 13W65A0239 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 47       | 2       |
| 13W65A0240 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 27       | 4       |
| 13W65A0240 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 28       | 4       |
| 13W65A0240 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 19       | 36       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 13W65A0240 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 17       | -1       | 0       |
| 13W65A0240 | R32025  | POWER SEMICONDUCTOR DRIVES          | 20       | -1       | 0       |
| 13W65A0240 | R32026  | MANAGEMENT SCIENCE                  | 13       | 16       | 0       |
| 13W65A0240 | R32027  | POWER ELECTRONICS LAB               | 0        | -1       | 0       |
| 13W65A0240 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 42       | 2       |
| 13W65A0241 | R32021  | ELECTRICAL MACHINE DESIGN           | 20       | 42       | 4       |
| 13W65A0241 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 35       | 4       |
| 13W65A0241 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 16       | 51       | 4       |
| 13W65A0241 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 12       | 39       | 4       |
| 13W65A0241 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 30       | 4       |
| 13W65A0241 | R32026  | MANAGEMENT SCIENCE                  | 15       | 50       | 4       |
| 13W65A0241 | R32027  | POWER ELECTRONICS LAB               | 23       | 40       | 2       |
| 13W65A0241 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 40       | 2       |
| 13W65A0242 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 26       | 4       |
| 13W65A0242 | R32022  | POWER SYSTEM ANALYSIS               | 17       | 26       | 4       |
| 13W65A0242 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 47       | 4       |
| 13W65A0242 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 26       | 4       |
| 13W65A0242 | R32025  | POWER SEMICONDUCTOR DRIVES          | 21       | 33       | 4       |
| 13W65A0242 | R32026  | MANAGEMENT SCIENCE                  | 15       | 38       | 4       |
| 13W65A0242 | R32027  | POWER ELECTRONICS LAB               | 22       | 41       | 2       |
| 13W65A0242 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 20       | 41       | 2       |
| 13W65A0243 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 37       | 4       |
| 13W65A0243 | R32022  | POWER SYSTEM ANALYSIS               | 21       | 40       | 4       |
| 13W65A0243 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 52       | 4       |
| 13W65A0243 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 10       | 63       | 4       |
| 13W65A0243 | R32025  | POWER SEMICONDUCTOR DRIVES          | 23       | 43       | 4       |
| 13W65A0243 | R32026  | MANAGEMENT SCIENCE                  | 16       | 43       | 4       |
| 13W65A0243 | R32027  | POWER ELECTRONICS LAB               | 22       | 42       | 2       |
| 13W65A0243 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 46       | 2       |
| 13W65A0244 | R32021  | ELECTRICAL MACHINE DESIGN           | 23       | 45       | 4       |
| 13W65A0244 | R32022  | POWER SYSTEM ANALYSIS               | 23       | 31       | 4       |
| 13W65A0244 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 24       | 41       | 4       |
| 13W65A0244 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 23       | 52       | 4       |
| 13W65A0244 | R32025  | POWER SEMICONDUCTOR DRIVES          | 24       | 35       | 4       |
| 13W65A0244 | R32026  | MANAGEMENT SCIENCE                  | 20       | 41       | 4       |
| 13W65A0244 | R32027  | POWER ELECTRONICS LAB               | 23       | 47       | 2       |
| 13W65A0244 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 46       | 2       |
| 13W65A0245 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 33       | 4       |
| 13W65A0245 | R32022  | POWER SYSTEM ANALYSIS               | 19       | 26       | 4       |
| 13W65A0245 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 21       | 42       | 4       |
| 13W65A0245 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 16       | 26       | 4       |
| 13W65A0245 | R32025  | POWER SEMICONDUCTOR DRIVES          | 21       | 28       | 4       |
| 13W65A0245 | R32026  | MANAGEMENT SCIENCE                  | 17       | 40       | 4       |
| 13W65A0245 | R32027  | POWER ELECTRONICS LAB               | 22       | 38       | 2       |
| 13W65A0245 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 22       | 43       | 2       |
| 13W65A0246 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 34       | 4       |
| 13W65A0246 | R32022  | POWER SYSTEM ANALYSIS               | 20       | 26       | 4       |
| 13W65A0246 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 19       | 44       | 4       |
| 13W65A0246 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 17       | 28       | 4       |
| 13W65A0246 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 35       | 4       |
| 13W65A0246 | R32026  | MANAGEMENT SCIENCE                  | 18       | 35       | 4       |

| Htno       | Subcode | Subname                             | Internal | External | credits |
|------------|---------|-------------------------------------|----------|----------|---------|
| 13W65A0246 | R32027  | POWER ELECTRONICS LAB               | 21       | 41       | 2       |
| 13W65A0246 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 24       | 42       | 2       |
| 13W65A0247 | R32021  | ELECTRICAL MACHINE DESIGN           | 21       | 26       | 4       |
| 13W65A0247 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 18       | 0       |
| 13W65A0247 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 17       | 42       | 4       |
| 13W65A0247 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 43       | 4       |
| 13W65A0247 | R32025  | POWER SEMICONDUCTOR DRIVES          | 25       | 26       | 4       |
| 13W65A0247 | R32026  | MANAGEMENT SCIENCE                  | 14       | 42       | 4       |
| 13W65A0247 | R32027  | POWER ELECTRONICS LAB               | 21       | 40       | 2       |
| 13W65A0247 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 46       | 2       |
| 13W65A0248 | R32021  | ELECTRICAL MACHINE DESIGN           | 18       | 33       | 4       |
| 13W65A0248 | R32022  | POWER SYSTEM ANALYSIS               | 18       | 44       | 4       |
| 13W65A0248 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 20       | 48       | 4       |
| 13W65A0248 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 14       | 52       | 4       |
| 13W65A0248 | R32025  | POWER SEMICONDUCTOR DRIVES          | 24       | 14       | 0       |
| 13W65A0248 | R32026  | MANAGEMENT SCIENCE                  | 16       | 43       | 4       |
| 13W65A0248 | R32027  | POWER ELECTRONICS LAB               | 22       | 44       | 2       |
| 13W65A0248 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 44       | 2       |
| 13W65A0249 | R32021  | ELECTRICAL MACHINE DESIGN           | 22       | 43       | 4       |
| 13W65A0249 | R32022  | POWER SYSTEM ANALYSIS               | 22       | 35       | 4       |
| 13W65A0249 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 45       | 4       |
| 13W65A0249 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 15       | 40       | 4       |
| 13W65A0249 | R32025  | POWER SEMICONDUCTOR DRIVES          | 18       | 31       | 4       |
| 13W65A0249 | R32026  | MANAGEMENT SCIENCE                  | 15       | 30       | 4       |
| 13W65A0249 | R32027  | POWER ELECTRONICS LAB               | 22       | 43       | 2       |
| 13W65A0249 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 25       | 45       | 2       |
| 13W65A0250 | R32021  | ELECTRICAL MACHINE DESIGN           | 23       | 39       | 4       |
| 13W65A0250 | R32022  | POWER SYSTEM ANALYSIS               | 22       | 43       | 4       |
| 13W65A0250 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 48       | 4       |
| 13W65A0250 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 20       | 29       | 4       |
| 13W65A0250 | R32025  | POWER SEMICONDUCTOR DRIVES          | 19       | 42       | 4       |
| 13W65A0250 | R32026  | MANAGEMENT SCIENCE                  | 18       | 42       | 4       |
| 13W65A0250 | R32027  | POWER ELECTRONICS LAB               | 22       | 44       | 2       |
| 13W65A0250 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 46       | 2       |
| 13W65A0251 | R32021  | ELECTRICAL MACHINE DESIGN           | 15       | 18       | 0       |
| 13W65A0251 | R32022  | POWER SYSTEM ANALYSIS               | 15       | 5        | 0       |
| 13W65A0251 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 22       | 12       | 0       |
| 13W65A0251 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 9        | 21       | 0       |
| 13W65A0251 | R32025  | POWER SEMICONDUCTOR DRIVES          | 8        | 9        | 0       |
| 13W65A0251 | R32026  | MANAGEMENT SCIENCE                  | 19       | 34       | 4       |
| 13W65A0251 | R32027  | POWER ELECTRONICS LAB               | 18       | 28       | 2       |
| 13W65A0251 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 23       | 41       | 2       |
| 13W65A0252 | R32021  | ELECTRICAL MACHINE DESIGN           | 19       | 30       | 4       |
| 13W65A0252 | R32022  | POWER SYSTEM ANALYSIS               | 22       | 18       | 0       |
| 13W65A0252 | R32023  | UTILIZATION OF ELECTRICAL ENERGY    | 0        | 20       | 0       |
| 13W65A0252 | R32024  | MICROPROCESSORS AND MICROCONTROLLER | 12       | 9        | 0       |
| 13W65A0252 | R32025  | POWER SEMICONDUCTOR DRIVES          | 16       | 9        | 0       |
| 13W65A0252 | R32026  | MANAGEMENT SCIENCE                  | 2        | 39       | 4       |
| 13W65A0252 | R32027  | POWER ELECTRONICS LAB               | 20       | 10       | 0       |
| 13W65A0252 | R32028  | ELECTRICAL MEASUREMENTS LAB         | 16       | 42       | 2       |
| 13W65A0301 | R32031  | METROLOGY                           | 18       | 29       | 4       |

| Htno       | Subcode | Subname                           | Internal | External | credits |
|------------|---------|-----------------------------------|----------|----------|---------|
| 13W65A0301 | R32032  | ROBOTICS                          | 23       | 3        | 0       |
| 13W65A0301 | R32033  | HEAT TRANSFER                     | 22       | 64       | 4       |
| 13W65A0301 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 24       | 50       | 4       |
| 13W65A0301 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 22       | 48       | 4       |
| 13W65A0301 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 18       | 34       | 4       |
| 13W65A0301 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 24       | 47       | 2       |
| 13W65A0301 | R32038  | HEAT TRANSFER LAB                 | 25       | 41       | 2       |
| 13W65A0302 | R32031  | METROLOGY                         | 20       | 61       | 4       |
| 13W65A0302 | R32032  | ROBOTICS                          | 24       | 35       | 4       |
| 13W65A0302 | R32033  | HEAT TRANSFER                     | 22       | 58       | 4       |
| 13W65A0302 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 40       | 4       |
| 13W65A0302 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 19       | 65       | 4       |
| 13W65A0302 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 23       | 40       | 4       |
| 13W65A0302 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 22       | 44       | 2       |
| 13W65A0302 | R32038  | HEAT TRANSFER LAB                 | 23       | 41       | 2       |
| 13W65A0303 | R32031  | METROLOGY                         | 20       | 29       | 4       |
| 13W65A0303 | R32032  | ROBOTICS                          | 24       | 60       | 4       |
| 13W65A0303 | R32033  | HEAT TRANSFER                     | 19       | 26       | 4       |
| 13W65A0303 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 29       | 4       |
| 13W65A0303 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 17       | 45       | 4       |
| 13W65A0303 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 17       | 62       | 4       |
| 13W65A0303 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 40       | 2       |
| 13W65A0303 | R32038  | HEAT TRANSFER LAB                 | 15       | 30       | 2       |
| 13W65A0304 | R32031  | METROLOGY                         | 20       | 51       | 4       |
| 13W65A0304 | R32032  | ROBOTICS                          | 25       | 41       | 4       |
| 13W65A0304 | R32033  | HEAT TRANSFER                     | 21       | 30       | 4       |
| 13W65A0304 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 34       | 4       |
| 13W65A0304 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 22       | 55       | 4       |
| 13W65A0304 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 19       | 34       | 4       |
| 13W65A0304 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 22       | 41       | 2       |
| 13W65A0304 | R32038  | HEAT TRANSFER LAB                 | 23       | 38       | 2       |
| 13W65A0305 | R32031  | METROLOGY                         | 22       | 52       | 4       |
| 13W65A0305 | R32032  | ROBOTICS                          | 25       | 35       | 4       |
| 13W65A0305 | R32033  | HEAT TRANSFER                     | 22       | 46       | 4       |
| 13W65A0305 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 45       | 4       |
| 13W65A0305 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 24       | 38       | 4       |
| 13W65A0305 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 21       | 45       | 4       |
| 13W65A0305 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 24       | 47       | 2       |
| 13W65A0305 | R32038  | HEAT TRANSFER LAB                 | 25       | 48       | 2       |
| 13W65A0306 | R32031  | METROLOGY                         | 20       | 32       | 4       |
| 13W65A0306 | R32032  | ROBOTICS                          | 24       | 29       | 4       |
| 13W65A0306 | R32033  | HEAT TRANSFER                     | 16       | 31       | 4       |
| 13W65A0306 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 23       | 27       | 4       |
| 13W65A0306 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 15       | 54       | 4       |
| 13W65A0306 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 18       | 34       | 4       |
| 13W65A0306 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 23       | 41       | 2       |
| 13W65A0306 | R32038  | HEAT TRANSFER LAB                 | 25       | 41       | 2       |
| 13W65A0307 | R32031  | METROLOGY                         | 16       | 26       | 4       |
| 13W65A0307 | R32032  | ROBOTICS                          | 11       | 44       | 4       |
| 13W65A0307 | R32033  | HEAT TRANSFER                     | 6        | 5        | 0       |
| 13W65A0307 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 21       | 14       | 0       |

| Htno       | Subcode | Subname                           | Internal | External | credits |
|------------|---------|-----------------------------------|----------|----------|---------|
| 13W65A0307 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 9        | 7        | 0       |
| 13W65A0307 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 21       | 36       | 4       |
| 13W65A0307 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 21       | 40       | 2       |
| 13W65A0307 | R32038  | HEAT TRANSFER LAB                 | 23       | 44       | 2       |
| 13W65A0308 | R32031  | METROLOGY                         | 20       | 55       | 4       |
| 13W65A0308 | R32032  | ROBOTICS                          | 23       | 38       | 4       |
| 13W65A0308 | R32033  | HEAT TRANSFER                     | 16       | 19       | 0       |
| 13W65A0308 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 21       | 30       | 4       |
| 13W65A0308 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 15       | 26       | 4       |
| 13W65A0308 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 18       | 30       | 4       |
| 13W65A0308 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 41       | 2       |
| 13W65A0308 | R32038  | HEAT TRANSFER LAB                 | 22       | 46       | 2       |
| 13W65A0309 | R32031  | METROLOGY                         | 22       | 42       | 4       |
| 13W65A0309 | R32032  | ROBOTICS                          | 25       | 42       | 4       |
| 13W65A0309 | R32033  | HEAT TRANSFER                     | 23       | 51       | 4       |
| 13W65A0309 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 25       | 51       | 4       |
| 13W65A0309 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 25       | 46       | 4       |
| 13W65A0309 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 23       | 37       | 4       |
| 13W65A0309 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 23       | 45       | 2       |
| 13W65A0309 | R32038  | HEAT TRANSFER LAB                 | 25       | 47       | 2       |
| 13W65A0310 | R32031  | METROLOGY                         | 20       | 29       | 4       |
| 13W65A0310 | R32032  | ROBOTICS                          | 23       | 44       | 4       |
| 13W65A0310 | R32033  | HEAT TRANSFER                     | 21       | 57       | 4       |
| 13W65A0310 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 25       | 42       | 4       |
| 13W65A0310 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 17       | 44       | 4       |
| 13W65A0310 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 18       | 44       | 4       |
| 13W65A0310 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 18       | 40       | 2       |
| 13W65A0310 | R32038  | HEAT TRANSFER LAB                 | 24       | 32       | 2       |
| 13W65A0311 | R32031  | METROLOGY                         | 21       | 34       | 4       |
| 13W65A0311 | R32032  | ROBOTICS                          | 23       | 68       | 4       |
| 13W65A0311 | R32033  | HEAT TRANSFER                     | 22       | 26       | 4       |
| 13W65A0311 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 22       | 26       | 4       |
| 13W65A0311 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 11       | 51       | 4       |
| 13W65A0311 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 23       | 48       | 4       |
| 13W65A0311 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 20       | 40       | 2       |
| 13W65A0311 | R32038  | HEAT TRANSFER LAB                 | 16       | 39       | 2       |
| 13W65A0312 | R32031  | METROLOGY                         | 20       | 53       | 4       |
| 13W65A0312 | R32032  | ROBOTICS                          | 21       | 49       | 4       |
| 13W65A0312 | R32033  | HEAT TRANSFER                     | 16       | 18       | 0       |
| 13W65A0312 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 21       | 32       | 4       |
| 13W65A0312 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 17       | 52       | 4       |
| 13W65A0312 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 17       | 29       | 4       |
| 13W65A0312 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 20       | 39       | 2       |
| 13W65A0312 | R32038  | HEAT TRANSFER LAB                 | 18       | 30       | 2       |
| 13W65A0313 | R32031  | METROLOGY                         | 23       | 52       | 4       |
| 13W65A0313 | R32032  | ROBOTICS                          | 24       | 40       | 4       |
| 13W65A0313 | R32033  | HEAT TRANSFER                     | 24       | 48       | 4       |
| 13W65A0313 | R32034  | INSTRUMENTATION & CONTROL SYSTEMS | 25       | 51       | 4       |
| 13W65A0313 | R32035  | DESIGN OF MACHINE MEMBERS_II      | 23       | 52       | 4       |
| 13W65A0313 | R32036  | INDUSTRIAL ENGG. & MANAGEMENT     | 23       | 35       | 4       |
| 13W65A0313 | R32037  | METROLOGY & INSTRUMENTATION LAB   | 25       | 47       | 2       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 13W65A0313 | R32038  | HEAT TRANSFER LAB                        | 25       | 48       | 2       |
| 13W65A0401 | R32026  | MANAGEMENT SCIENCE                       | 9        | 33       | 4       |
| 13W65A0401 | R32041  | COMPUTER NETWORKS                        | 22       | 41       | 4       |
| 13W65A0401 | R32042  | MICROWAVE ENGINEERING                    | 21       | 15       | 0       |
| 13W65A0401 | R32043  | DIGITAL SIGNAL PROCESSING                | 16       | 13       | 0       |
| 13W65A0401 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 9        | 11       | 0       |
| 13W65A0401 | R32045  | VLSI DESIGN                              | 15       | 35       | 4       |
| 13W65A0401 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 42       | 2       |
| 13W65A0401 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 16       | 41       | 2       |
| 13W65A0402 | R32026  | MANAGEMENT SCIENCE                       | 18       | 31       | 4       |
| 13W65A0402 | R32041  | COMPUTER NETWORKS                        | 24       | 33       | 4       |
| 13W65A0402 | R32042  | MICROWAVE ENGINEERING                    | 23       | 32       | 4       |
| 13W65A0402 | R32043  | DIGITAL SIGNAL PROCESSING                | 15       | 16       | 0       |
| 13W65A0402 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 21       | 28       | 4       |
| 13W65A0402 | R32045  | VLSI DESIGN                              | 21       | 30       | 4       |
| 13W65A0402 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 41       | 2       |
| 13W65A0402 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 43       | 2       |
| 13W65A0403 | R32026  | MANAGEMENT SCIENCE                       | 19       | 43       | 4       |
| 13W65A0403 | R32041  | COMPUTER NETWORKS                        | 25       | 57       | 4       |
| 13W65A0403 | R32042  | MICROWAVE ENGINEERING                    | 24       | 37       | 4       |
| 13W65A0403 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 62       | 4       |
| 13W65A0403 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 23       | 48       | 4       |
| 13W65A0403 | R32045  | VLSI DESIGN                              | 25       | 38       | 4       |
| 13W65A0403 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 20       | 42       | 2       |
| 13W65A0403 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 43       | 2       |
| 13W65A0404 | R32026  | MANAGEMENT SCIENCE                       | 21       | 45       | 4       |
| 13W65A0404 | R32041  | COMPUTER NETWORKS                        | 24       | 33       | 4       |
| 13W65A0404 | R32042  | MICROWAVE ENGINEERING                    | 21       | 17       | 0       |
| 13W65A0404 | R32043  | DIGITAL SIGNAL PROCESSING                | 16       | 34       | 4       |
| 13W65A0404 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 20       | 62       | 4       |
| 13W65A0404 | R32045  | VLSI DESIGN                              | 23       | 51       | 4       |
| 13W65A0404 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 36       | 2       |
| 13W65A0404 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 20       | 41       | 2       |
| 13W65A0405 | R32026  | MANAGEMENT SCIENCE                       | 20       | 41       | 4       |
| 13W65A0405 | R32041  | COMPUTER NETWORKS                        | 19       | 42       | 4       |
| 13W65A0405 | R32042  | MICROWAVE ENGINEERING                    | 22       | 26       | 4       |
| 13W65A0405 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 28       | 4       |
| 13W65A0405 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 21       | 31       | 4       |
| 13W65A0405 | R32045  | VLSI DESIGN                              | 20       | 46       | 4       |
| 13W65A0405 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 17       | 38       | 2       |
| 13W65A0405 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 40       | 2       |
| 13W65A0406 | R32026  | MANAGEMENT SCIENCE                       | 22       | 39       | 4       |
| 13W65A0406 | R32041  | COMPUTER NETWORKS                        | 24       | 39       | 4       |
| 13W65A0406 | R32042  | MICROWAVE ENGINEERING                    | 24       | 56       | 4       |
| 13W65A0406 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 39       | 4       |
| 13W65A0406 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 23       | 50       | 4       |
| 13W65A0406 | R32045  | VLSI DESIGN                              | 23       | 34       | 4       |
| 13W65A0406 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 20       | 40       | 2       |
| 13W65A0406 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 40       | 2       |
| 13W65A0407 | R32026  | MANAGEMENT SCIENCE                       | 20       | 37       | 4       |
| 13W65A0407 | R32041  | COMPUTER NETWORKS                        | 23       | 55       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|-------------------------------------------|----------|----------|---------|
| 13W65A0407 | R32042  | MICROWAVE ENGINEERING                     | 23       | 49       | 4       |
| 13W65A0407 | R32043  | DIGITAL SIGNAL PROCESSING                 | 19       | 64       | 4       |
| 13W65A0407 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS     | 24       | 42       | 4       |
| 13W65A0407 | R32045  | VLSI DESIGN                               | 21       | 40       | 4       |
| 13W65A0407 | R32047  | MICROPROCESSORS AND MICROCONTROLLERSS LAB | 21       | 44       | 2       |
| 13W65A0407 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB      | 23       | 45       | 2       |
| 13W65A0408 | R32026  | MANAGEMENT SCIENCE                        | 16       | 44       | 4       |
| 13W65A0408 | R32041  | COMPUTER NETWORKS                         | 20       | 34       | 4       |
| 13W65A0408 | R32042  | MICROWAVE ENGINEERING                     | 23       | 37       | 4       |
| 13W65A0408 | R32043  | DIGITAL SIGNAL PROCESSING                 | 17       | 29       | 4       |
| 13W65A0408 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS     | 18       | 52       | 4       |
| 13W65A0408 | R32045  | VLSI DESIGN                               | 18       | 42       | 4       |
| 13W65A0408 | R32047  | MICROPROCESSORS AND MICROCONTROLLERSS LAB | 20       | 43       | 2       |
| 13W65A0408 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB      | 21       | 44       | 2       |
| 13W65A0409 | R32026  | MANAGEMENT SCIENCE                        | 18       | 39       | 4       |
| 13W65A0409 | R32041  | COMPUTER NETWORKS                         | 22       | 39       | 4       |
| 13W65A0409 | R32042  | MICROWAVE ENGINEERING                     | 23       | 37       | 4       |
| 13W65A0409 | R32043  | DIGITAL SIGNAL PROCESSING                 | 14       | 37       | 4       |
| 13W65A0409 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS     | 15       | 32       | 4       |
| 13W65A0409 | R32045  | VLSI DESIGN                               | 22       | 42       | 4       |
| 13W65A0409 | R32047  | MICROPROCESSORS AND MICROCONTROLLERSS LAB | 21       | 43       | 2       |
| 13W65A0409 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB      | 23       | 46       | 2       |
| 13W65A0410 | R32026  | MANAGEMENT SCIENCE                        | 18       | 43       | 4       |
| 13W65A0410 | R32041  | COMPUTER NETWORKS                         | 22       | 32       | 4       |
| 13W65A0410 | R32042  | MICROWAVE ENGINEERING                     | 23       | 31       | 4       |
| 13W65A0410 | R32043  | DIGITAL SIGNAL PROCESSING                 | 18       | 10       | 0       |
| 13W65A0410 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS     | 19       | 32       | 4       |
| 13W65A0410 | R32045  | VLSI DESIGN                               | 19       | 26       | 4       |
| 13W65A0410 | R32047  | MICROPROCESSORS AND MICROCONTROLLERSS LAB | 17       | 43       | 2       |
| 13W65A0410 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB      | 18       | 39       | 2       |
| 13W65A0411 | R32026  | MANAGEMENT SCIENCE                        | 22       | 42       | 4       |
| 13W65A0411 | R32041  | COMPUTER NETWORKS                         | 23       | 54       | 4       |
| 13W65A0411 | R32042  | MICROWAVE ENGINEERING                     | 24       | 26       | 4       |
| 13W65A0411 | R32043  | DIGITAL SIGNAL PROCESSING                 | 19       | 38       | 4       |
| 13W65A0411 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS     | 21       | 36       | 4       |
| 13W65A0411 | R32045  | VLSI DESIGN                               | 23       | 47       | 4       |
| 13W65A0411 | R32047  | MICROPROCESSORS AND MICROCONTROLLERSS LAB | 20       | 41       | 2       |
| 13W65A0411 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB      | 22       | 42       | 2       |
| 13W65A0412 | R32026  | MANAGEMENT SCIENCE                        | 16       | 45       | 4       |
| 13W65A0412 | R32041  | COMPUTER NETWORKS                         | 18       | 41       | 4       |
| 13W65A0412 | R32042  | MICROWAVE ENGINEERING                     | 23       | 29       | 4       |
| 13W65A0412 | R32043  | DIGITAL SIGNAL PROCESSING                 | 15       | 42       | 4       |
| 13W65A0412 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS     | 18       | 48       | 4       |
| 13W65A0412 | R32045  | VLSI DESIGN                               | 19       | 49       | 4       |
| 13W65A0412 | R32047  | MICROPROCESSORS AND MICROCONTROLLERSS LAB | 17       | 33       | 2       |
| 13W65A0412 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB      | 22       | 42       | 2       |
| 13W65A0413 | R32026  | MANAGEMENT SCIENCE                        | 20       | 54       | 4       |
| 13W65A0413 | R32041  | COMPUTER NETWORKS                         | 22       | 43       | 4       |
| 13W65A0413 | R32042  | MICROWAVE ENGINEERING                     | 22       | 40       | 4       |
| 13W65A0413 | R32043  | DIGITAL SIGNAL PROCESSING                 | 18       | 33       | 4       |
| 13W65A0413 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS     | 18       | 34       | 4       |

| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 13W65A0413 | R32045  | VLSI DESIGN                              | 18       | 45       | 4       |
| 13W65A0413 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 39       | 2       |
| 13W65A0413 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 22       | 42       | 2       |
| 13W65A0414 | R32026  | MANAGEMENT SCIENCE                       | 16       | 33       | 4       |
| 13W65A0414 | R32041  | COMPUTER NETWORKS                        | 18       | 32       | 4       |
| 13W65A0414 | R32042  | MICROWAVE ENGINEERING                    | 24       | 36       | 4       |
| 13W65A0414 | R32043  | DIGITAL SIGNAL PROCESSING                | 15       | 33       | 4       |
| 13W65A0414 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 19       | 45       | 4       |
| 13W65A0414 | R32045  | VLSI DESIGN                              | 21       | 26       | 4       |
| 13W65A0414 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 39       | 2       |
| 13W65A0414 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 15       | 41       | 2       |
| 13W65A0415 | R32026  | MANAGEMENT SCIENCE                       | 15       | 34       | 4       |
| 13W65A0415 | R32041  | COMPUTER NETWORKS                        | 15       | 53       | 4       |
| 13W65A0415 | R32042  | MICROWAVE ENGINEERING                    | 20       | 35       | 4       |
| 13W65A0415 | R32043  | DIGITAL SIGNAL PROCESSING                | 17       | 43       | 4       |
| 13W65A0415 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 16       | 34       | 4       |
| 13W65A0415 | R32045  | VLSI DESIGN                              | 19       | 35       | 4       |
| 13W65A0415 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 18       | 38       | 2       |
| 13W65A0415 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 15       | 42       | 2       |
| 13W65A0416 | R32026  | MANAGEMENT SCIENCE                       | 22       | 38       | 4       |
| 13W65A0416 | R32041  | COMPUTER NETWORKS                        | 22       | 33       | 4       |
| 13W65A0416 | R32042  | MICROWAVE ENGINEERING                    | 23       | 40       | 4       |
| 13W65A0416 | R32043  | DIGITAL SIGNAL PROCESSING                | 21       | 42       | 4       |
| 13W65A0416 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 23       | 47       | 4       |
| 13W65A0416 | R32045  | VLSI DESIGN                              | 24       | 54       | 4       |
| 13W65A0416 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 16       | 38       | 2       |
| 13W65A0416 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 45       | 2       |
| 13W65A0417 | R32026  | MANAGEMENT SCIENCE                       | 15       | 49       | 4       |
| 13W65A0417 | R32041  | COMPUTER NETWORKS                        | 19       | 49       | 4       |
| 13W65A0417 | R32042  | MICROWAVE ENGINEERING                    | 23       | 38       | 4       |
| 13W65A0417 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 40       | 4       |
| 13W65A0417 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 18       | 44       | 4       |
| 13W65A0417 | R32045  | VLSI DESIGN                              | 18       | 36       | 4       |
| 13W65A0417 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 15       | 40       | 2       |
| 13W65A0417 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 39       | 2       |
| 13W65A0418 | R32026  | MANAGEMENT SCIENCE                       | 16       | 26       | 4       |
| 13W65A0418 | R32041  | COMPUTER NETWORKS                        | 16       | 32       | 4       |
| 13W65A0418 | R32042  | MICROWAVE ENGINEERING                    | 18       | 39       | 4       |
| 13W65A0418 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 7        | 0       |
| 13W65A0418 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 21       | 28       | 4       |
| 13W65A0418 | R32045  | VLSI DESIGN                              | 16       | 15       | 0       |
| 13W65A0418 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 6        | 33       | 2       |
| 13W65A0418 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 17       | 40       | 2       |
| 13W65A0419 | R32026  | MANAGEMENT SCIENCE                       | 17       | 42       | 4       |
| 13W65A0419 | R32041  | COMPUTER NETWORKS                        | 22       | 47       | 4       |
| 13W65A0419 | R32042  | MICROWAVE ENGINEERING                    | 17       | 10       | 0       |
| 13W65A0419 | R32043  | DIGITAL SIGNAL PROCESSING                | 11       | 33       | 4       |
| 13W65A0419 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSSS   | 18       | 26       | 4       |
| 13W65A0419 | R32045  | VLSI DESIGN                              | 16       | 31       | 4       |
| 13W65A0419 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 13       | 43       | 2       |
| 13W65A0419 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 13       | 38       | 2       |

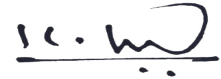


| Htno       | Subcode | Subname                                  | Internal | External | credits |
|------------|---------|------------------------------------------|----------|----------|---------|
| 13W65A0420 | R32026  | MANAGEMENT SCIENCE                       | 20       | 38       | 4       |
| 13W65A0420 | R32041  | COMPUTER NETWORKS                        | 21       | 33       | 4       |
| 13W65A0420 | R32042  | MICROWAVE ENGINEERING                    | 21       | 34       | 4       |
| 13W65A0420 | R32043  | DIGITAL SIGNAL PROCESSING                | 18       | 46       | 4       |
| 13W65A0420 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 44       | 4       |
| 13W65A0420 | R32045  | VLSI DESIGN                              | 24       | 47       | 4       |
| 13W65A0420 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 44       | 2       |
| 13W65A0420 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 18       | 39       | 2       |
| 13W65A0421 | R32026  | MANAGEMENT SCIENCE                       | 22       | 30       | 4       |
| 13W65A0421 | R32041  | COMPUTER NETWORKS                        | 19       | 40       | 4       |
| 13W65A0421 | R32042  | MICROWAVE ENGINEERING                    | 22       | 36       | 4       |
| 13W65A0421 | R32043  | DIGITAL SIGNAL PROCESSING                | 3        | -1       | 0       |
| 13W65A0421 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 22       | 33       | 4       |
| 13W65A0421 | R32045  | VLSI DESIGN                              | 22       | 41       | 4       |
| 13W65A0421 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 15       | 41       | 2       |
| 13W65A0421 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 14       | -1       | 0       |
| 13W65A0423 | R32026  | MANAGEMENT SCIENCE                       | 20       | 37       | 4       |
| 13W65A0423 | R32041  | COMPUTER NETWORKS                        | 24       | 26       | 4       |
| 13W65A0423 | R32042  | MICROWAVE ENGINEERING                    | 24       | 58       | 4       |
| 13W65A0423 | R32043  | DIGITAL SIGNAL PROCESSING                | 20       | 35       | 4       |
| 13W65A0423 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 23       | 50       | 4       |
| 13W65A0423 | R32045  | VLSI DESIGN                              | 23       | 30       | 4       |
| 13W65A0423 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 23       | 42       | 2       |
| 13W65A0423 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 23       | 45       | 2       |
| 13W65A0424 | R32026  | MANAGEMENT SCIENCE                       | 22       | 39       | 4       |
| 13W65A0424 | R32041  | COMPUTER NETWORKS                        | 24       | 52       | 4       |
| 13W65A0424 | R32042  | MICROWAVE ENGINEERING                    | 24       | 43       | 4       |
| 13W65A0424 | R32043  | DIGITAL SIGNAL PROCESSING                | 19       | 48       | 4       |
| 13W65A0424 | R32044  | MICROPROCESSORS AND MICROCONTROLLERSS    | 20       | 31       | 4       |
| 13W65A0424 | R32045  | VLSI DESIGN                              | 23       | 43       | 4       |
| 13W65A0424 | R32047  | MICROPROCESSORS AND MICROCONTROLLERS LAB | 19       | 44       | 2       |
| 13W65A0424 | R32048  | ELECTRONIC COMPUTER AIDED DESIGN LAB     | 21       | 44       | 2       |
| 13W65A0501 | R32026  | MANAGEMENT SCIENCE                       | 10       | -1       | 0       |
| 13W65A0501 | R32051  | ADVANCED COMPUTER NETWORKS               | 21       | 31       | 4       |
| 13W65A0501 | R32052  | COMPUTER ARCHITECTURE                    | 10       | 0        | 0       |
| 13W65A0501 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS        | 18       | 28       | 4       |
| 13W65A0501 | R32054  | UNIX PROGRAMMING                         | 21       | 4        | 0       |
| 13W65A0501 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES       | 16       | 2        | 0       |
| 13W65A0501 | R32057  | COMPUTER NETWORKS AND UNIX LAB           | 22       | 40       | 2       |
| 13W65A0501 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB   | 18       | 38       | 2       |
| 13W65A0502 | R32026  | MANAGEMENT SCIENCE                       | 16       | 31       | 4       |
| 13W65A0502 | R32051  | ADVANCED COMPUTER NETWORKS               | 20       | 36       | 4       |
| 13W65A0502 | R32052  | COMPUTER ARCHITECTURE                    | 16       | 37       | 4       |
| 13W65A0502 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS        | 20       | 8        | 0       |
| 13W65A0502 | R32054  | UNIX PROGRAMMING                         | 16       | 13       | 0       |
| 13W65A0502 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES       | 19       | 26       | 4       |
| 13W65A0502 | R32057  | COMPUTER NETWORKS AND UNIX LAB           | 23       | 44       | 2       |
| 13W65A0502 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB   | 20       | 40       | 2       |
| 13W65A0503 | R32026  | MANAGEMENT SCIENCE                       | 25       | 31       | 4       |
| 13W65A0503 | R32051  | ADVANCED COMPUTER NETWORKS               | 22       | 53       | 4       |
| 13W65A0503 | R32052  | COMPUTER ARCHITECTURE                    | 24       | 52       | 4       |

| Htno       | Subcode | Subname                                | Internal | External | credits |
|------------|---------|----------------------------------------|----------|----------|---------|
| 13W65A0503 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 24       | 42       | 4       |
| 13W65A0503 | R32054  | UNIX PROGRAMMING                       | 22       | 43       | 4       |
| 13W65A0503 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 23       | 58       | 4       |
| 13W65A0503 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 24       | 49       | 2       |
| 13W65A0503 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 24       | 49       | 2       |
| 13W65A0504 | R32026  | MANAGEMENT SCIENCE                     | 16       | 49       | 4       |
| 13W65A0504 | R32051  | ADVANCED COMPUTER NETWORKS             | 17       | 40       | 4       |
| 13W65A0504 | R32052  | COMPUTER ARCHITECTURE                  | 13       | 33       | 4       |
| 13W65A0504 | R32053  | DESIGN AND ANALYSIS OF ALGORITHMS      | 18       | 39       | 4       |
| 13W65A0504 | R32054  | UNIX PROGRAMMING                       | 14       | 41       | 4       |
| 13W65A0504 | R32055  | ADVANCED JAVA AND WEB TECHNOLOGIES     | 14       | 49       | 4       |
| 13W65A0504 | R32057  | COMPUTER NETWORKS AND UNIX LAB         | 22       | 42       | 2       |
| 13W65A0504 | R32058  | ADVANCED JAVA AND WEB TECHNOLOGIES LAB | 19       | 38       | 2       |

**\*\*Note:- For Recounting/Revaluation/Challenge By Revaluation Apply through College PORTAL by Examination Incharge only on or before 14-08-2015.**

Date:04-08-2015



Controller of Examinations