**Second Year Third Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | | **Subject Code** | | **Theory** | | **Contact Hours/Week** | | | | | | **Credit**  **Points** |
|  | |  | |  | | **L** | **T** | **P** | **Total** | | |  |
| **1** | | **HU301** | | Values & Ethics in Profession | | 3 | 0 | 0 | 3 | | | 3 |
| **2** | | **M301** | | Mathematics-3 | | 3 | 1 | 0 | 4 | | | 4 |
| **3** | | **CH301** | | Basic Environmental Engineering &  Elementary Biology; | | 3 | 1 | 0 | 4 | | | 4 |
| **4** | | **CS301** | | Analog & Digital Electronics | | 3 | 1 | 0 | 4 | | | 4 |
| **5** | | **CS302** | | Data Structure & Algorithm | | 3 | 1 | 0 | 4 | | | 4 |
| **6** | | **CS303** | | Computer Organisation | | 3 | 1 | 0 | 4 | | | 4 |
| **Total of Theory** | | | | | | | | | **23** | | | **23** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **7** | | **CS391** | | Analog & Digital Electronics Lab | | 0 | 0 | 3 | | 3 | 2 | |
| **8** | | **CS392** | | Data Structure & Algorithm Lab | | 0 | 0 | 3 | | 3 | 2 | |
| **9** | | **CS393** | | Computer Organisation Lab | | 0 | 0 | 3 | | 3 | 2 | |
| **Total of Practical** | | | | | | | | | | **9** | **6** | |
| **C. SESSIONAL** | | | | | | | | | | | | |
| **10** | **GS381** | | General Studies - III | | 3 | | 1 | 0 | | 4 | 4 | |
| **Total of Sessional** | | | | | | | | | | **4** | **4** | |
| **Total of Semester** | | | | | | |  |  | | **36** | **33** | |

**Second Year Fourth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **A.THEORY** | | | | | | | | | | | | | |
| **Sl No.** | **Subject Code** | | **Theory** | | | **Contact Hours/Week** | | | | | | | **Credit**  **Points** |
|  |  | |  | | | **L** | **T** | | **P** | | **Total** | |  |
| **1** | **M(CS)401** | | Numerical Methods | | | 2 | 1 | | 0 | | 3 | | 2 |
| **2** | **CS401** | | Communication Engg & Coding  Theory | | | 3 | 0 | | 0 | | 3 | | 3 |
| **3** | **CS402** | | Formal Language & Automata Theory | | | 3 | 1 | | 0 | | 4 | | 4 |
| **4** | **CS403** | | Computer Architecture | | | 3 | 1 | | 0 | | 4 | | 4 |
| **5** | **CS404** | | Discrete Mathematics | | | 3 | 1 | | 0 | | 4 | | 4 |
| **Total of Theory** | | | | | | | | | | | **18** | | **17** |
| **B. PRACTICAL** | | | | | | | | | | | | | |
| **6** | **HU481** | | Technical Report Writing & Language Lab | | | 0 | 0 | | 3 | 3 | | 2 | |
| **7** | **M(CS)491** | | Numerical Methods Lab | | | 0 | 0 | | 2 | 2 | | 1 | |
| **8** | **CS491** | | Communication Engg & Coding  Theory Lab | | | 0 | 0 | | 3 | 3 | | 2 | |
| **9** | **CS492** | | Software Tools | | | 0 | 0 | | 3 | 3 | | 2 | |
| **10** | **CS493** | | Computer Architecture Lab | | | 0 | 0 | | 3 | 3 | | 2 | |
| **Total of Practical** | | | | | | | | | | **14** | | **9** | |
| **C. SESSIONAL** | | | | | | | | | | | | | |
| **11** | | **GS481** | | General Studies - IV | 3 | | 1 | 0 | | 4 | | 4 | |
| **Total of Sessional** | | | | | | | | | | **4** | | **4** | |
| **Total of Semester** | | | | | | | | | | **36** | | **30** | |

**Third Year – Fifth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | | **Subject Code** | | **Theory** | | **Contact Hours/Week** | | | | | | **Credit**  **Points** |
|  | |  | |  | | **L** | **T** | **P** | | **Total** | |  |
| **1** | | **HU501** | | Economics for Engineers | | 3 | 0 | 0 | | 3 | | 3 |
| **2** | | **CS501** | | Design & Analysis of Algorithm | | 3 | 1 | 0 | | 4 | | 4 |
| **3** | | **CS502** | | Microprocessors & Microcontrollers | | 3 | 1 | 0 | | 4 | | 4 |
| **4** | | **CS503** | | Data Base Management Systems | | 3 | 1 | 0 | | 4 | | 4 |
| **5** | | **Free**  **Elective**  **CS504A**  **CS504B**  **CS504C**  **CS504D** | | Circuit Theory & Network  Data Communication  Digital Signal Processing  Object Oriented Programming using Java | | 3 | 0 | 0 | | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | **18** | | **18** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **6** | | **CS591** | | Design & Analysis of Algorithm | | 0 | 0 | 3 | | | 3 | 2 |
| **7** | | **CS592** | | Microprocessors & Microcontrollers | | 0 | 0 | 3 | | | 3 | 2 |
| **8**  **9** | | **CS593**  **F.E.**  **CS594A**  **CS594B**  **CS594C**  **CS594D** | | Data Base Management Systems Lab  Circuit Theory & Network Lab  Data Communication Lab  Digital Signal Processing Lab  Object Oriented Programming using Java | | 0  0 | 0  0 | 0  3 | | | 3  3 | 2  2 |
| **Total of Practical** | | | | | | | | | | | **12** | **8** |
| **C. SESSIONAL** | | | | | | | | | | | | |
| **10** | **GS581** | | General Studies - V | | 3 | | 1 | | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | **34** | **30** |

**Third Year – Sixth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | | | | |
| **Sl No.** | **Subject Code** | | **Theory** | | | | | **Contact Hours/Week** | | | | | | | **Credit**  **Points** |
|  |  | |  | | | | | **L** | | **T** | **P** | | **Total** | |  |
| **1** | **HU601** | | Principles of Management | | | | | 2 | | 0 | 0 | | 2 | | 2 |
| **2** | **CS601** | | Software Engineering | | | | | 3 | | 0 | 0 | | 3 | | 3 |
| **3** | **CS602** | | Computer Networks | | | | | 3 | | 1 | 0 | | 4 | | 4 |
| **4** | **CS603** | | Operating System | | | | | 3 | | 0 | 0 | | 3 | | 3 |
| **5** | **P.E**  **CS604A**  **CS604B**  **CS604C** | | Information Theory & Coding  Computer Graphics  ERP | | | | | 3 | | 0 | 0 | | 3 | | 3 |
| **6** | **F. E.**  **CS605A**  **CS605B**  **CS605C** | | Operation Research  Human Resource Management  Multimedia Technology | | | | | 3 | | 0 | 0 | | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | | | | **18** | | **18** |
| **B. PRACTICAL** | | | | | | | | | | | | | | | |
| **7** | **CS691** | | | | Programming Practices using C++ Lab | | 0 | | 0 | | 3 | | | 3 | 2 |
| **8** | **CS692** | | | | Computer Networks Lab | | 0 | | 0 | | 3 | | | 3 | 2 |
| **9** | **CS693** | | | | Operating System Lab | | 0 | | 0 | | 3 | | | 3 | 2 |
| **10** | **CS681** | | | | **Seminar** | | 0 | | 0 | | 3 | | | 3 | 2 |
| **Total of Practical** | | | | | | | | | | | | | | **12** | **8** |
| **C. SESSIONAL** | | | | | | | | | | | | | | | |
| **11** | | **GS681** | | General Studies - VI | | 3 | | | 1 | | | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | | | | **34** | **30** |

**Fourth Year – Seventh Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | | | | |
| **Sl No.** | | **Subject Code** | **Theory** | | **Contact Hours/Week** | | | | | | | | | | **Credit**  **Points** |
|  | |  |  | | **L** | | | | **T** | | | **P** | **Total** | |  |
| **1** | | **CS701** | Artificial Intelligence | | 3 | | | | 0 | | | 0 | 3 | | 3 |
| **2** | | **CS702** | Compiler Design | | 3 | | | | 0 | | | 0 | 3 | | 3 |
| **3** | | **CS703** | A. Pattern Recognition  B. Soft Computing  C. Distributed Operating System  D. Image Processing | | 3 | | | | 0 | | | 0 | 3 | | 3 |
| **4** | | **CS704** | A. Cloud Computing  B. Data Warehousing and Data Mining  C. Sensor Networks  D. Mobile Computing | | 3 | | | | 0 | | | 0 | 3 | | 3 |
| **5** | | **CS705** | A. Internet Technology  B. Microelectronics & VLSI Design  C. Control System  D. Modelling & Simulation | | 3 | | | | 0 | | | 0 | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | | | | **15** | | **15** |
| **B. PRACTICAL** | | | | | | | | | | | | | | | |
| **6** | | **HU781** | Group Discussion | | 0 | | | | 0 | | | 3 | | 3 | 2 |
| **7** | | **CS791** | Software Engineering Lab | | 0 | | | | 0 | | | 3 | | 3 | 2 |
| **8** | | **CS792** | Artificial Intelligence Lab | | 0 | | | | 0 | | | 3 | | 3 | 2 |
| **9** | | **CS793** | A. Pattern Recognition Lab  B. Soft Computing Lab  C. Distributed Operating System Lab  D. Image Processing Lab | | 0 | | | | 0 | | | 3 | | 3 | 2 |
| **10** | | **CS794** | A. Internet Technology Lab  B. Microelectronics & VLSI Design Lab  C. Control System Lab  D. Modeling & Simulation Lab | | 0 | | | | 0 | | | 3 | | 3 | 2 |
| **11** | | **CS782** | Industrial training | | 4 weeks during 6th -7 thSem-break | | | | | | | | | | 2 |
| **12** | | **CS783** | Project- 1 | |  | |  | | |  | | | 3 | | 2 |
| **Total of Practical** | | | | | | | | | | | | | | **18** | **14** |
| **C. SESSIONAL** | | | | | | | | | | | | | | | |
| **13** | **GS781** | | | General Studies - VII | | 3 | | 1 | | | 0 | | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | | | | **37** | **33** |

**Fourth Year – Eighth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | **Subject Code** | | **Theory** | | | **Contact Hours/Week** | | | | | | **Credit**  **Points** |
|  |  | |  | | | **L** | **T** | **P** | | **Total** | |  |
| **1** | **HU801A**  **HU801B** | | A. Organisational Behaviour  B. Project Management | | | 2 | 0 | 0 | | 2 | | 2 |
| **2** | **CS801** | | A. Advanced Computer Architecture  B. Parallel Computing  C. Natural Language Processing  D. Cryptography & Network Security  E. Business Analytics | | | 3 | 0 | 0 | | 3 | | 3 |
| **3** | **CS802** | | A. Technology Management  B. Cyber Law & Security Policy  C. Optical Networking  D. Low Power Circuits & Systems  E. E-Commerce  F. Robotics | | | 3 | 0 | 0 | | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | **8** | | **8** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **4** | **CS891** | | Design Lab / Industrial problem related  practical training (Workshop needed) | | | 0 | 0 | 6 | | | 6 | 4 |
| **5** | **CS892** | | Project-2 | | | 0 | 0 | 12 | | | 12 | 6 |
| **6** | **CS893** | | Grand Viva | | |  |  |  | | |  | 3 |
| **Total of Practical** | | | | | | | | | | | **18** | **13** |
| **C. SESSIONAL** | | | | | | | | | | | | |
| **7** | | **GS881** | | General Studies - VIII | 3 | | 1 | | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | **30** | **25** |