**Annexure I**

**Structure for Revised courses for AY 2017-18**

**S.Y. B. Tech. Structure with effect from Academic Year 2017-18**

**Module 1II**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Subject** | **Type** | **Teaching Scheme** | | | **Assessment Scheme** | | | | | | |
|  |  |  | **Theory** | **Project** | **Lab** | **ISA** | | | | **Credits** | | |
|  |  |  |  |  |  | **MSE** | **HA** | **L/P** | **ESE** | |  |
| **CS201TH** | **Computer Organization (TH)** | **S1** | **3** | **-** |  | 35 | 30 | - | 35 | | **3** |
| **CS202THP** | **Object Oriented Programming (THP)** | **S2** | **3** | **2** | **-** | 35 | - | 30 | 35 | | **4** |
| **CS203TLP** | **Data Structure (TLP)** | **S3** | **3** | **2** | **2** | 35 | - | 30 | 35 | | **5** |
| **CS204THL** | **Digital Electronics and Logic Design (THL)** | **S4** | **3** | **-** | **2** | 35 | - | 30 | 35 | | **4** |
| **CS205TH** | **Discrete Structure and Graph Theory (TH)** | **S5** | **3** |  | **-** | 35 | 30 | - | 35 | | **3** |
| **HS251TH** | **Engineering  and Managerial Economics**  **(HSS) (TH)** | **HSS** | **2** | **-** | **-** | 35 | 30 | - | 35 | | **2** |
| **CS212SD** | **Core Java** | **P1** |  | **-** | **2** |  |  | 30 | 70 | | **2** |
| **CS213SD** | **Python** | **P2** |  | **-** | **2** |  |  | 30 | 70 | | **2** |
| **CS214SD** | **PHP-MySQL** | **P3** |  | **-** | **2** |  |  | 30 | 70 | | **2** |
| **CS215SD** | **Problem Solving Programming** | **P4** |  | **-** | **2** |  |  | 70 | 30 | | **2** |
| **CS216INT** | **Summer Training** |  |  |  |  |  |  |  |  | |  |
| **TOTAL** | | | **17** | **4** | **6** |  |  |  |  | | **23** |

**S.Y. B. Tech. Structure with effect from Academic Year 2017-18**

**Module 1V**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Code** | **Subject** | **Type** | **Teaching Scheme** | | | **Assessment Scheme** | | | | | | |
|  |  |  | **Theory** | **Project** | **Lab** | **ISA** | | | | **Credits** | | |
|  |  |  |  |  |  | **MSE** | **HA** | **L/P** | **ESE** | |  |
| **CS206TLP** | **Advanced Data Structure (TLP)** | **S1** | **3** | **2** | **2** | 35 | - | 30 | 35 | | **5** |
| **CS207TH** | **Automata Theory (TH)** | **S2** | **3** |  | **-** | 35 | 30 | - | 35 | | **3** |
| **CS208THL** | **Microprocessor and Interfacing/ (THL)** | **S3** | **3** |  | **2** | 35 | - | 30 | 35 | | **4** |
| **CS209THL** | **Computer Graphics (THL)** | **S4** | **3** | **-** | **2** | 35 | - | 30 | 35 | | **4** |
| **CS210TH** | **Linear Algebra and Applied Probability** | **S5** | **3** |  | **-** | 35 | 30 | - | 35 | | **3** |
| **HS252TH** | **COSTING AND COST CONTROL (HSS) (TH)** | **HSS** | **2** | **-** | **-** | 35 | 30 | - | 35 | | **2** |
| **CS211PRJ** | **Mini Project** | **P1** |  | **2** | **-** | - | - | - | - | | **2** |
| **TOTAL** | | | **17** | **4** | **6** |  |  |  |  | | **23** |

**T.Y. B. Tech. Structure with effect from Academic Year 2017-18**

**Module V**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Subject** | **Type** | **Teaching Scheme** | | | **Assessment Scheme** | | | | | | | | | |
|  |  |  | **Theory** | **Project** | **Lab** | **ISA** | | | | | | | **Credits** | | |
|  |  |  |  |  |  | **MSE** | **HA** | | **L/P** | | **ESE** | | |  | | |
| **CS301THL** | **Data Base Management System (THL)** | **S1** | **3** | **-** | **2** | 35 | - | | 30 | | 35 | | | **4** | | |
| **CS302THP** | **Web Technology (THP)** | **S2** | **3** | **2** | **-** | 35 | - | | 30 | | 35 | | | **4** | | |
| **CS303THL** | **Software Engineering (THL)** | **S3** | **3** | **-** | **2** | 35 | - | | 30 | | 35 | | | **4** | | |
| **CS304TH** | **Design and Analysis of Algorithms (TH)** | **S4** | **3** | **-** | **-** | 35 | 30 | | - | | 35 | | | **3** | | |
| **CS305THP** | **Data Science (THP)** | **S5** | **3** | **2** | **-** | 35 | - | | 30 | | 35 | | | **4** | | |
| **HS351TH** | **Quantitative Aptitude-I (HSS) (TH)** | **HSS** | **2** | **-** | **-** | 35 | 30 | | - | | 35 | | | **2** | | |
| **CS315PD** | **Advanced Java** | **PD** |  |  | **2-** |  | |  | |  | | 30 | | |  | | | **2** |
| **CS316PD** | **Mobile App Development** | **PD** |  |  | **2** |  | |  | |  | |  | | |  | | | **2** |
| **CS321PD** | **Big Data Technology** | **PD** |  |  | **2** |  | |  | |  | |  | | |  | | | **2** |
| **CS317PD** | **PIC microcontroller** | **PD** |  |  | **2** |  | |  | |  | |  | | |  | | | **2** |
| **CS318PD** | **Ethical hacking and Network Defense** | **PD** |  |  | **2** |  | |  | |  | |  | | |  | | | **2** |
| **CS319PD** | **Grail Framework** | **PD** |  |  | **2** |  | |  | |  | |  | | |  | | | **2** |
| **CS320PD** | **Cyber Security and Forensic Tools** | **PD** |  |  | **2** |  | |  | |  | |  | | |  | | | **2** |
| **CS322INT** | **Industrial Training** |  |  |  |  |  | |  | |  | |  | | |  | | | **2** |
| **TOTAL** | | | **17** | **4** | **6** |  | |  | |  | |  | | |  | | | **23** |

**T.Y. B. Tech. Structure with effect from Academic Year 2017-18**

**Module VI**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Subject** | **Type** | **Teaching Scheme** | | | **Assessment Scheme** | | | | | | |
|  |  |  | **Theory** | **Project** | **Lab** | **ISA** | | | | **Credits** | | |
|  |  |  |  |  |  | **MSE** | **HA** | **L/P** | **ESE** | |  |
| **CS306THP** | **Operating System (THP)** | **S1** | **3** | **2** | **-** | 35 | - | 30 | 35 | | **4** |
| **CS307THP** | **Compiler Design(THP)** | **S2** | **3** | **2** | **-** | 35 | - | 30 | 35 | | **4** |
| **CS308THL** | **System Programming (THL)** | **S3** | **3** | **-** | **2** | 35 | - | 30 | 35 | | **4** |
| **CS309THL** | **Computer Networks (THL)** | **S4** | **3** | **-** | **2** | 35 | - | 30 | 35 | | **4** |
| **CS310TH** | **Signals and Systems (TH)** | **S5** | **3** | **-** | **-** | 35 | 30 | - | 35 | | **3** |
| **HS352TH** | **Quantitative Aptitude II**  **(HSS) (TH)** | **HSS** | **2** | **-** | **-** | 35 | 30 | - | 35 | | **2** |
| **CS311PRJ** | **Mini Project** | **P** |  |  | **2-** |  |  | 30 |  | | **2** |
| **TOTAL** | | | **17** | **4** | **6** |  |  |  |  | | **23** |

**B. Tech. Structure with effect from Academic Year 2017-18**

**Module VII**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Subject** | **Type** | **Teaching Scheme** | | | **Assessment Scheme** | | | | | | |
|  |  |  | **Theory** | **Project** | **Lab** | **ISA** | | | | **Credits** | | |
|  |  |  |  |  |  | **MSE** | **HA** | **L/P** | **ESE** | |  |
| **CS401THL** | **Artificial Intelligence (THL)** | **S1** | **3** |  | **2** | 35 | - | 30 | 35 | | **4** |
| **CS402THL** | **Network Security (THL)** | **S2** | **3** |  | **2** | 35 | - | 30 | 35 | | **4** |
|  | **EL-I (THL)** | **S3** | **3** | **-** | **2** | 35 | - | 30 | 35 | | **4** |
|  | **EL-II (THP)** | **S4** | **3** | **2** |  | 35 | - | 30 | 35 | | **4** |
| **CS405PRJ** | **Project-I** | **P** | **-** | **10** | **-** | - | - | - | - | | **5** |
| **TOTAL** | | | **12** | **12** | **6** |  |  |  |  | | **21** |

**B. Tech. Structure with effect from Academic Year 2017-18**

**Module VIII**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Subject** | **Type** | **Teaching Scheme** | | | **Assessment Scheme** | | | | | | |
|  |  |  | **Theory** | **Project** | **Lab** | **ISA** | | | | **Credits** | | |
|  |  |  |  |  |  | **MSE** | **HA** | **L/P** | **ESE** | |  |
| **CS406INT** | **Open EL-I** | **S1** | **3** | **-** | **-** | 35 | 30 | - | 35 | | **3** |
| **CS407INT** | **Internship** | **P** | **-** | **16** | **-** | - | - | - | - | | **8** |
| **CS408INT** | **Project Based Viva** | **P** | **-** | **-** | **-** | - | - | - | - | | **4** |
| **TOTAL** | | | **3** | **16** | **-** |  |  |  |  | | **21** |

**B. Tech. Structure with effect from Academic Year 2016-17**

**Module VIII**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Subject** | **Type** | **Teaching Scheme** | | | **Assessment Scheme** | | | | | | |
|  |  |  | **Theory** | **Project** | **Lab** | **ISA** | | | | **Credits** | | |
|  |  |  |  |  |  | **MSE** | **HA** | **L/P** | **ESE** | |  |
|  | **Open EL-I** | **S1** | **3** | **-** | **-** | 35 | 30 | - | 35 | | **3** |
|  | **Open EL-II** | **P** | **3** | **-** | **-** | 35 | 30 | - | 35 | | **3** |
|  | **Open EL-III** |  | **3** | **-** | **-** | 35 | 30 | - | 35 | | **3** |
| **CS413PRJ** | **Project-II** | **P** | **-** | **8** | **-** | - | - | - | - | | **4** |
| **CS414SEM** | **Seminar** |  |  |  |  |  |  |  |  | | **2** |
| **TOTAL** | | | **9** | **8** | **-** |  |  |  |  | | **15** |

**Elective List**

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Subject Name** | **Code** |
| 1 | Embedded Systems | CS417THL |
| 2 | Mobile Computing | CS419THL |
| 3 | Parallel Computing | CS421THL |
| 4 | Image Processing | CS424THL |
| 5 | Convergence Technology | CS426THL |
| 6 | Neural Network | CS430THL |
| 7 | Machine Learning | CS431THL |
| 8 | Software Design Methodologies | CS432THL |
| 9 | Software Testing and Quality Assurance | CS437THL |
| 10 | Cloud Computing | CS420THP |
| 11 | Distributed Computing | CS422THP |
| 12 | Ubiquitous Computing | CS423THP |
| 13 | Geographical Information System | CS425THP |
| 14 | Enterprise System | CS427THP |
| 15 | Machine Vision and Pattern Recognition | CS428THP |
| 16 | Information Retrieval | CS429THP |
| 17 | Internet of Things | CS433THP |
| 18 | Randomization and Approximation Algorithms | CS434THP |
| 19 | Management Information System | CS435THP |
| 20 | Modeling and Simulation | CS439THP |
| 21 | Data Acquisition System | CS440THP |
| 22 | Human Computer Interaction | CS442THP |
| 23 | Advanced Computer Architecture | CS436THP |
| 24 | Machine Learning | CS431THP |
| 25 | Summer Internship | CS452INT |
| 26 | Mobile Computing | CS444TH |
| 27 | Software Testing and Quality Assurance | CS445TH |
| 28 | Modeling and Simulation | CS447TH |
| 29 | Data Acquisition System | CS448TH |
| 30 | CYBER SECURITY AND DIGITAL FORENSICS | CS453TH |
| 31 | Advanced Computer Architecture | CS454TH |
| 32 | Cloud Computing | CS455TH |