Computer Fundamental

Teacher Name : Mr Neeraj Kumar

Department : Computer Engineering

Semester : First Year

Subject : Comp. Fundamentals

**Workload - 3 Lecture per week**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | **Theory** |
| **Week** |  |  |  |
|  | **Topic** | **(Including** |
|  | **Day** |  | **assignment / test)** |
|  |  |
| 1st | 1st | **1. Fundamentals of Computer** | |
|  | 1.1 Draw the block diagram of a Computer. | |
|  |  |  | |
|  | 2nd | 1.2. Explain the interaction between the CPU, | |
|  | Memory Input/Output devices. | |
|  |  |  | |
|  | 3rd | 1.3. Describe the function of CPU and major | |
|  | functional parts of CPU | |
|  |  |  | |
|  |  | 1.4. Describe the function of memory. | |
|  | 4th | 1.5 Describe the function of input/output devices. | |
|  |  |  | |
| 2nd |  | 1.6 State the relevance of speed and word length for | |
|  | 1st | CPU Performance. | |
|  |  | 1.7 Recognize the current family of CPUs used in | |
|  |  | Computers |  |
|  |  | 1.8 State the use of storage devices used in a | |
|  | 2nd | Computer. |  |
|  | 1.9 List types of memory used in a Computer. | |
|  |  | 1.10 State the importance of cache memory. | |
|  |  |  | |
|  |  | 1.11 Generations of computers. | |
|  | 3rd | 1.12 Classification of computers –based on size, | |
|  |  | processor. |  |
|  |  | 1.13 Know importance of binary number system | |
|  | 4th | for use in Digital Computers. | |
|  | 1.14 List the various number systems used in | |
|  |  | digital Computer. | |
| 3rd | 1st | 1.15 Convert decimal number into binary number. | |
|  |  |  |  |
|  | 2nd | 1.16 Convert binary number into decimal number. | |
|  |  |  | |
|  |  | 1.17 Convert binary number into hexadecimal | |
|  | 3rd | number. |  |
|  |  |  |  |
|  |  |  | |
|  | 4th | 1.18 Convert hexadecimal number into binary | |
|  | number. |  |
| 4th | 1st | 1.19. Understand the ASCII coding scheme. | |
|  | 1.20 Understand the EBCDIC coding scheme. | |
|  |  | **2. DOS & Windows Operating Systems** | |
|  | 2nd | 2.1 Describe the need for an operating system | |
|  |  |  |  |
|  |  | 2.2 List the various operating system used presently | |
|  | 3rd |  |  |
|  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  | 2.3 DOS Prompt, Types of Commands |
|  | 4th |  |
|  |  |  |
|  |  |  |
|  |  |  |
| 5th |  | Internal Commands of DOS |
|  | 1st |  |
|  |  |  |
|  | 2nd | Internal Commands of DOS |
|  |  |
|  | 3rd | Internal Commands of DOS |
|  | 4th | Internal Commands of DOS |
| 6th | 1st | Internal Commands of DOS |
|
|  |  |  |
|  | 2nd | External Commands of DOS |
|  |  |  |
|  |  | External Commands of DOS |
|  | 3rd |  |
|  |  |
|  |  |  |
|  |  |  |
|  |  | External Commands of DOS |
|  | 4th |  |
|  |  |  |
|  |  |  |
| 7th | 1st | External Commands of DOS |
|  |  |
|  |  |  |
|  |  | 2.4 Directories and files , wild cards, autoexec.bat, |
|  | 2nd | config.sys |
|  |  |  |
|  | 3rd | 2.5 List the features of Window desktop |
|  | 4th | 2.6 List the components of Window |
|  |  |
| 8th | 1st | 2.7 State the function of each component of Window |
|  |  |  |
|  |  | 2.8 Explain the method of starting a program using |
|  | 2nd | start button |
|  |  | 2.9 Understand maximize, minimize, restore down |
|  |  | and close button |
|  |  | 2.10 State the meaning of a file |
|  | 3rd | 2.11 State the meaning of a folder |
|  |  |  |
|  |  | 2.12 Explain the method of viewing the contents of |
|  | 4th | hard disk drive using explore option |
|  |  |  |
| 9th |  | 2.13 Explain the method of finding a file using |
|  | 1st | search option |
|  |  | 2.14 Explain formatting a floppy disk using explore |
|  |  | option |
|  | 2nd | 2.15 Describe installing new software using control |
|  | panel |
|  |  | 2.16 Describe uninstalling software using control |
|  | 3rd | panel |
|  |  |  |
|  |  | 2.17 Explain installing a new hardware using |
|  | 4th | control panel |
|  |  |  |
| 10th | 1st | 2.18 Explain uninstalling a hardware using control |
|  |  | panel |

|  |  |  |
| --- | --- | --- |
|  |  | 2.19 Narrate finding out drive space using system |
|  | 2nd | tool option of accessories group |
|  |  |  |
|  |  | 2.20 Explain the procedure of disk defragmentation |
|  | 3rd | using system tool |
|  |  |  |
|  |  |  |
|  |  | 2.21 Narrate installing a Printer using control panel |
|  | 4th |  |
|  |  |  |
| 11th |  | 2.22 Explain the procedure for changing resolution, |
|  | 1st | colour, appearances, and screensaver |
|  |  | option of the display |
|  | 2nd | 2.23 Narrate the process of charging the system |
|  | date and time |
|  |  | **3. Fundamentals of Internet** |
|  | 3rd | 3.1 Explain meaning of a computer network |
|  |  |  |
|  | 4th | 3.2 Describe the concept of a local area network |
|  | 3.3 Explain the concept of wide area network |
| 12th |  | 3.4 Compare internet & intranet |
|  | 1st | 3.5 Describe the relevance of an internet service |
|  |  | provider |
|  |  | 3.6 Explain the role of the modem in accessing the |
|  | 2nd | internet |
|  | 3.7 Explain the installation procedure of a modem |
|  |  | using control panel |
|  |  |  |
|  | 3rd | 3.8 Explain the purpose of web browser software |
|  |  |
|  |  |  |
|  | 4th | 3.9 Explain the structure of a Universal Resources |
|  | Locator(URL) |
| 13th | 1st | 3.10 Describe the purpose of World Wide Web, |
|  |  | FTP, telnet and E-mail |
|  |  | 3.11 Explain the process of sending and receiving e |
|  | 2nd | mail |
|  |  |  |
|  |  |  |
|  |  | 3.12 Understand different connection methods |
|  |  |  |
|  | 3rd |  |
|  |  |  |
|  |  |  |
|  |  | 3.13 Describe address format and IP address |
|  | 4th |  |
|  |  |  |
| 14th | 1st | 3.14 Describe DNS |
|  |  |  |
|  |  | 3.15 Describe the role of search engines with |
|  | 2nd | examples |
|  | 3.16 Differences between search engines and |
|  |  | directory. |
|  |  |  |
|  | 3rd | 3.17 Know about social network sites |
|  | 3.18 Understand internet security |
|  |  | **4. Understand Programming Methodology** |
|  |  | 4.1. State the different steps involved in problem |
|  | 4th | solving |
|  |  | 4.2 State the steps involved in algorithm |
|  |  | development |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| 15th |  | 4.3 Differentiate algorithm and flowchart |
|  | 1st | 4.4 Develop algorithms for simple problems |
|  |  |
|  |  |  |
|  |  |  |
|  |  | 4.4 Develop algorithms for simple problems |
|  | 2nd |  |
|  |  |  |
|  |  |  |
|  |  | 4.5 Draw the symbols used in flowcharts |
|  | 3rd | 4.6 Draw flowcharts for simple problems |
|  |  |  |
|  | 4th | 4.6 Draw flowcharts for simple problems |

**(**