

Unique Paper Code : 62341101
Name of the Course : B.A. (Prog.) Computer Applications
Name of the Paper : Computer Fundamentals
Semester : I
Duration : 3 Hours
Maximum Marks : 75
Year of Admission : 2021-2022

Instructions for Candidates:

Attempt any four questions. All Questions carry equal marks.

- Q1. Define Computer System, Mainframe and Supercomputers. Differentiate between the three types of computer systems with two examples of each type of system. Also, explain how different components of a computer system interact with each other using a diagram.
- Q2. Do the following:
- (i) Convert $(10111001.01)_2$ to $(\dots)_{10}$
 - (ii) Convert $(2170.85)_{10}$ to $(\dots)_8$
 - (iii) Convert $(BC.B6)_{16}$ to $(\dots)_{10}$
 - (iv) Convert $(320.25)_{10}$ to $(\dots)_2$
 - (v) Subtract $(0111010)_2$ from $(001100)_2$
 - (vi) Add $(110001)_2$ and $(11101)_2$
 - (vii) 2's complement of $(10101001.101)_2$
- Q3. Explain three input and three output devices that are used to communicate with the computer? What are pointing devices and explain any three pointing devices. Differentiate between impact and non-impact printers? Give one example of both impact and non-impact printers?
- Q4. What is secondary storage and why do we need it in our computers? Describe briefly any two secondary storage devices. Explain the role of magnetic disks in a computer

system. A disk pack has 20 disk plates, 5312 tracks per plate, 250 sectors per track, and 512 bytes per sector. What is the storage capacity of the disk?

- Q5. Why is software and hardware both necessary for a computer? What is a software package? Why do we need application software in a computer? Describe any five application software.
- Q6. What is cloud computing? Describe briefly its characteristics, advantages, disadvantages and its role in the corporate world. Name any two vendors providing cloud computing services. Explain Big Data and its importance in our everyday lives. Give any three applications of Big Data.