

Unique Paper Code : **62341101**
Name of the Course : **B. Voc**
Name of the Paper : **GEC 1.2 Computer Fundamentals**
Semester : **I**
Duration : **3 Hours**
Maximum Marks : **50**
Students admitted in the year : **2020**

Instructions for Candidates:

Attempt **ANY FOUR** out of Six questions.

All questions carry equal marks.

1. How are operating systems making the computers more efficient? Explain in the light of the various functions performed by Operating Systems.
2. Describe memory hierarchy and categorize the various types of Computer Memory in terms of cost, storage and speed. Can we have a computer without RAM or cache? Explain.
3. Solve the following

$$(110100111101)_2 = (?)_8$$

$$(BCD)_{16} = (?)_8$$

$$(10.31)_{10} = (?)_2$$

$$\text{Subtract } \{ (110010)_2 - (011110)_2 \}$$

$$\text{Add } \{ (7652)_8 + (3256)_8 \} = (?)_{16}$$

4. What is called the '*Working Memory of the CPU*' and why? Explain its types, giving the functions of each.
5. Which device would you recommend to be used for the following purposes? Give reasons for your answer.
 - Processing of large volumes of Cheques in a bank
 - Printing of an automobile engine design
 - Select objects directly on computer screen
 - Reading the label of a product by a shopkeeper
6. Explain Cloud Computing and give its advantages as an emerging paradigm. What is the role of computers in the field of research and education, with emphasis on its application in social sciences research.