(c) List the devices used in Networking. Explain the roles of any four devices.

(CO4)

5. (a) What are computer languages ? Write down advantages and disadvantages of Procedural programming languages.(CO5)

(b) Explain 4GL with its feature and advantages.   (CO5)

(c) Discuss Object Oriented Programming language and their feature in detail. (CO5)

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H   Roll No. 2232104

TBC–102/TBI–102

B. C. A./B. Sc. (IT)
(FIRST SEMESTER) END SEMESTER
EXAMINATION, Jan., 2023
COMPUTER FUNDAMENTALS AND
INFORMATION TECHNOLOGY

Time : Three Hours

Maximum Marks : 100

Note : (i) All questions are compulsory.

(ii) Answer any *two* sub-questions among (a), (b) and (c) in each main question.

(iii) Total marks in each main question are **twenty**.

(iv) Each sub-question carries 10 marks.

1. (a) Explain computer and classifications of computers according to purpose, data handling and functionality with neat diagram.   (CO1)

P. T. O.

(b) What are output devices ? What are the types of output devices ? Explain the characteristics of various types of Printers in detail.   (CO1)

(c) Define computer with the help of neat and clean block diagram and discuss in detail the characteristics of computer.   (CO1)

2. (a) Convert the following :   (CO1)

(i) $(5673)_{10}$ to $(.....)_8$

(ii) $(3BCD)_{16}$ to $(....)_{10}$

(iii) $(566875)_8$ to $(....)_2$

(iv) (1011101) to Gray Code

(b) Find the r's and $(r-1)$'s complements of the following numbers :   (CO2)

(i) $(1011000)_2$

(ii) $(155)_{10}$

(iii) $(347)_8$

(iv) $(C5)_{16}$

(c) (i) What is the advantage of secondary storage ? Explain various secondary storage devices.

(ii) Explain Main Memory. What is the difference between RAM and ROM ?   (CO2)

3. (a) What is an operating system ? Explain the properties of Batch, Multi-programmed and Time-shared operating system. (CO3)

(b) What is Directory structure ? Explain single level, Two level and Hierarchical structure directory with their advantages and disadvantages.   (CO3)

(c) Write short notes on the following : (CO3)

(i) BOOT TIME process

(ii) Multi-Threading operating system

4. (a) What is Network ? Discuss LAN, MAN and WAN in detail.   (CO4)

(b) (i) What is Internet ? Briefly discuss the applications of Internet.

(ii) What are Web browsers ? What is the difference between www and web browsers ?   (CO4)