BCA(Sem-I) —
CF & O (CC – 1)

2020(Voc)

Time : 3 hours

Full Marks : 50

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from **all** the Parts as directed.

Part – A

1. Multiple choice questions : $1 \times 5 = 5$

(a) Raw Data is processed by the system to produce meaningful _____ .

   (i) Information   (ii) Bytes

   (iii) Bits   (iv) Datum

   (v) None of these

(b) Which of the following is an example of 'Mechanical Analog Computer' ?

   (i) Television   (ii) Slide Ruler

   (iii) Oscilloscope   (iv) Sound Processor

   (v) All of these

          (Turn over)

(c) Which one of the following is an electromechanical input devices used for tactile sensing and fine-motion control in robotics and virtual reality ?

   (i) Digitizer   (ii) Image Scanner

   (iii) Data Gloves   (iv) All of these

   (v) None of these

(d) Which of the following statement(s) is / are correct about the BIOS ?

   (i) Program used by PC's Microprocessor

   (ii) Manages data flow between OS and devices attached to it

   (iii) Starts the Computer system after it is switched on

   (iv) All of the above

   (v) Only (iii)

(e) $(255)_{10} = (?)_{16}$

   (i) O   (ii) F

   (iii) FB   (iv) FD

   (iv) FF

2. Fill in the blanks : $1 \times 5 = 5$

   (a) _____ _____ is the rectangular pattern of image capture and reconstruction in any VDU.

(b) _____ _____ is an input device consisting of a stick that pivots on a base which are used in Video Game Consoles.

(c) _____ type data can take only possible values, 0 and 1.

(d) _____ _____ processing involves continuous input, process, and output of data.

(e) _____ is a type of computer network that connects standalone computers through an ethernet cable or through wireless technology.

Part – B

(Short-answer Type Questions)

There are **four** questions. Each question carries **five** marks. Answer any **two** questions. Each question should be answered in not more than **200** words : $5 \times 2 = 10$

3. Waht is 'Data' in Computer Science ? Explain with example. Explain the storage units of Data-Byte and Word.

4. What is ROM ? write short notes on : PROM, and EPROM.

5. Explain the Gates – OR, AND, NOT and XOR of Boolean Algebra, with diagram.

6. What is Batch Processing ? Explain with example. How it is different from On-Line Processing ?

Part – C
(Long-answer Type Questions)

There are five questions. Each question carries ten marks. Answer any three questions.

$$10 \times 3 = 30$$

7. Explain 'Computer Network Topology' and its different types, with diagram.

8. Explain the following :
   (a) Winchester Disk
   (b) Magnetic Taped
   (c) SRAM
   (d) DRAM

9. What are Register memories ? Explain any 3(three) register memories.

10. What is Operating System Software ? Explain briefly its main features and functions ?

11. Explain any two of the following :
    (a) Microprocessor and its types
    (b) Transmission Media and its types
    (c) Internet, its merits and demerits
    (d) Difference between LAN and WAN

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