2 0 2 1

Full Marks : 50

Time : 3 hours

The figures in the right-hand margin indicate marks

Answer **all** Parts as directed

Part—A

(Objective Type Questions)

1. *(a)* Choose the correct answers : 5×1

   (i) What does MAR stands for?

   (1) Main Address Register

   (2) Memory Address Register

   (3) Memory Access Register

   (4) Main Access Register

   (ii) —— is the raw material used as input and —— is the processed data obtained as output of data processing.

   (1) Data, Instructions

   (2) Instructions, Program

(3) Data, Program

(4) Program, Code

(iii) Which of the following is not characteristics of computer?

(1) Diligence

(2) IQ

(3) Accuracy

(4) Versatility

(iv) The 1's complement of $(1100)_2$ is

(1) 0011

(2) 1010

(3) 0001

(4) None of these

(v) Another name of base is

(1) root

(2) radix

(3) entity

(4) median

(b) Fill in the blanks :   5×1

(i) $(4B8)_{16} = (\ ?\ )_{10}.$ 1209

(ii) NOT Gate is also known as
———.

(iii) The network, which interconnects multiple station over a very small area is called ———.

(iv) Operating system is also known as ———.

(v) WAN stands for ———.

Part—B

(Short Answer Type Questions)

Answer *any two* questions in not more than 200 words each : 2×5

2. Describe the components of computer with diagram.

3. Differentiate between RAM and ROM.

4. Subtract 3 from 5 using 2's complements.

5. What is digital gate? Explain the AND Gate with truth-table and circuit diagram.

(4)

Part—C

(Long Answer Type Questions)

Answer *any three* questions : 3×10

6. Convert the following :

(i) $(1010)_2 = (?)_{10}$

(ii) $(15)_{10} = (?)_2$

(iii) $(254)_8 = (?)_{10}$

(iv) $(ABF)_{16} = (?)_{10}$

7. Prove that NAND Gate and NOR Gate are universal gates using circuit diagram.

8. What is networking? What are the advantages of networking?

9. What is printer? Differentiate between impact and non-impact printer.

10. Explain the following :

(a) BUSES

(b) Multiusers

(c) Plotter

(d) Pointer.

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