PUBV(S-I) — BCA

(CC – 1)

2023

Time : 3 hours

Full Marks : 70

Pass Marks : 32

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 Sections as directed.*

Section – A

(Compulsory)

(Objective Type Questions)

1. Choose the correct option of the following : 1×5 = 5

   (a) Which of the following is Input Scanner ?

   (i) MICR

   (ii) Keyword

(iii) Mouse

(iv) None of these

(b) Which of the following is 1's complements of $(1000)_2$ = ?

(i) 0001

(ii) 01000

(iii) 0111

(iv) None of these

(c) Which of the following is a Heart of the Computer ?

(i) CPU

(ii) MPU

(iii) Both (i) and (ii)

(iv) None of these

(d) 8 bit is equal to _____.

(i) 1 Byte

(ii) 1KB

(iii) 1MB

(iv) None of these

(e) Data + processing = ? Information

2. Fill in the blanks of the following : 1×5 = 5

(a) OMR stands for _____

(b) Base of Hexadecimal number is _____

(c) 4 Bit is equal to _____

(d) Topology is also known as _____

(e) NOT + AND = NAND .

Section – B

(Short-answer Type Questions)

Answer any **four** questions of the following : 5×4 = 20

3. Explain the type's of computer with diagram.

4. What is Gate ? Explain the OR Gate with truth table.

5. Explain the main application of Internt.

6. Differentiate between LAN and WAN.

7. Solve the following :

(a) $(35)_{10}$ = (?)2

(b) Subtruct 4 from 8 using 2's complements

8. Explain the following :

(a) Bus

(b) Multiuser

(c) Multitasking

Section – C

(Long-answer Type Questions)

Answer any **four** questions of the following :

10×4 = 40

9. Solve the following :

   (a) $(AB5)_{16} = (?)_8$

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

   (c) $(1010.1010)_2 = (?)_{10}$

   (d) Add 5 and – 5 using 2's complements.

10. Prove that using De Morgan's law of NAND Gate and NOR Gate is a Universal Gate.

11. What is Printer ? Explain the types of Printer with example.

12. What is Memory ? Explain the classification of Memory.

13. Prove the using circuit diagram of XOR Gate $Y = \bar{A}B + A\bar{B}$.

14. What is Networking ? Explain the advantages of Networking.