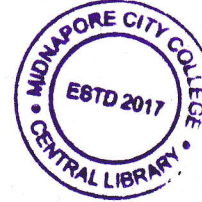# 2022

BCA 1st Semester (CBCS) Examination

Computer Fundamental and Basic Operating Software

PAPER — CC – 1T

Full Marks : 50

Time : 2 hours

The figures in the right-hand margin indicate marks.

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

Illustrate the answers wherever necessary.

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

GROUP—A

1. Answer *any* **five** questions :   2×5=10

   (a) How are the floating point numbers
   represented in computer memory?

   (b) Define star topology.

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(2)

(c) What is mnemonics?

(d) What is algorithm?

(e) What is LAN?

(f) Perform $(25)_{10} - (15)_{10}$ using 1's complement arithmetic.

(g) What do you mean by flash memory?

(h) What is the difference between Net Banking and M-Banking?

GROUP—B

Answer *any* **four** questions :

2. What are the functions of mainframe computer? Explain the drawbacks of machine languages.
   $2\frac{1}{2}+2\frac{1}{2}=5$

3. What do you mean by utility software? Draw the block diagram of a computer system and explain briefly.
   $2+3=5$

4. Draw a flowchart to find the GCD of two numbers.
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5. Define cache memory. Differentiate between BCDIC and EBCDIC.
   $2\frac{1}{2}+2\frac{1}{2}=5$

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(Continued)

(3)

6. Perform the following :
   $2\frac{1}{2}+2\frac{1}{2}=5$

   (a) $(562)_8 - (147)_8$ using 7's complement

   (b) $(152)_8 - (76)_8$ using 8's complement

7. Convert the following :
   $2\frac{1}{2}+2\frac{1}{2}=5$

   (a) $(6A9 \cdot B2)_{16} = (?)_8$

   (b) $(806 \cdot 305)_{10} = (?)_4$

GROUP—C

Answer *any* **two** questions :

8. Define operating system. What are the functions of operating system? What is the difference between multiprogramming and multitasking operating systems?
   $2+5+3=10$

9. Write short notes on the following :
   $2\frac{1}{2} \times 4 = 10$

   (a) FTP

   (b) Multiplexing

   (c) HTTP

   (d) E-Commerce

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(Turn Over)

10. What is the primary difference between third and fourth generation computers? Differentiate between application software and system software. Why is the SSD much faster than HDD? What is the difference between dynamic RAM and static RAM?   2+3+2+3=10

11. Perform the following :   2½×4=10

    (a) $(609)_{BCD} - (345)_{BCD}$

    (b) $(339)_{BCD} + (685)_{BCD}$

    (c) $(65 \cdot 25)_{10} - (37 \cdot 75)_{10}$ using 2's complement

    (d) $(33 \cdot 125)_{10} - (15 \cdot 25)_{10}$ using 1's complement

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