

END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER 2024

Paper Code: BCA-103T

Subject: Fundamentals of Information

Time: 3 Hours

Maximum Marks: 60

Note: Attempt any five questions. All questions carry equal marks.

- Q1 Attempt **any four** of the following questions:- (4x5=20)
- (i) Explain Network Topology and its types?
 - (ii) What is an Instruction Set? Explain the various types of addressing modes.
 - (iii) What is DOS? Explain any five DOS commands.
 - (iv) What is Programming Language? Explain the Types of Programming Languages.
 - (v) Explain flowchart and pseudocode.
 - (vi) Explain Web server and Search Engine.
 - (vii) Explain flash drive and its features.
 - (viii) Explain World Wide Web and Domain Name.
- Q2 Attempt following both parts: (2x5=10)
- (a) Draw a block diagram of computer and explain major components of digital computer.
 - (b) List all computer generation and its characteristics.
- OR**
- Q3 Attempt following both parts: (2x5=10)
- (a) Define Memory. Explain different types of memory used in computer systems.
 - (b) Explain the Input and Output Devices with Example.
- Q4 Attempt following both parts: (2x5=10)
- (a) What is Operating System? Explain the Functions of Operating System.
 - (b) What is computer software? Discuss the role of Assembler, Compiler and Interpreter.
- OR**
- Q5 Attempt following both parts: (2x5=10)
- (a) Explain System software and Application software with example of each type.
 - (b) Define Algorithm with its characteristics. Write an algorithm and flowchart to find the maximum of N numbers.
- Q6 Attempt following both parts: (2x5=10)
- (a) Explain any two of following:
 - (i) ASCII Code
 - (ii) EBCDIC Code
 - (iii) BCD Code
 - (b) Perform any two of following:
 - (i) $(125.75)_{10} = ()_2$
 - (ii) $(54 AA)_{16} = ()_8$
 - (iii) $(879)_{10} = ()_{16}$

OR

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- Q7 Attempt following both parts: (2x5=10)
(a) Explain 1's and 2's complement of a binary number.
(b) Perform any two of following:
 (i) Subtract 54 from 34 using 2's complement binary subtraction method
 (ii) Divide 11010 by 101
 (iii) Multiply 101101 by 110
- Q8 Explain Computer Network and its types (LAN, WAN, MAN) in detail? (10)
Differentiate Internet and Intranet
- OR**
- Q9 Attempt following both parts: (2x5=10)
(a) Discuss Client Server Architecture in detail.
(b) What is Data Transmission? Explain the Types of Data Transmissions?
