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.

<div align="center">OR</div>

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, Complier and Interpreter.

<div align="center">OR</div>

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) $(879)_{10} = (\ )_{16}$

<div align="center">OR</div>

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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?
      Differentiate Internet and Intranet   **(10)**

                                    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?

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