Note : Attempt **all** questions.

1   Attempt any **two** :   10×2=20

  (a) Draw the block diagram of a digital computer and explain its various blocks.

  (b) Give classification of various types of Memory used in Computers.

  (c) List and explain various types of I/O devices.

2   Attempt any **two** :   10×2=20

  (a) Explain Software Development Life Cycle (SDLC) and various stages of spiral model.

  (b) Explain algorithm and write an algorithm to calculate factorial of a given number (N).

  (c) Differentiate between :

    (i) Compiler and Assembler

    (ii) Translators and Interpreters.

3   Attempt any **two** :   2×10=20
      (a)   Compute the following :
           (i) $(3000)_{10} = (?)_8$
           (ii) $(122.86)_{10} = (?)_2$
           (iii) $(1000.111)_2 = (?)_{10}$
           (iv) $(217.76)_8 = (?)_{10}$
           (v) $(110001)_2 = (?)_{Gray}$
      (b)   Explain the advantages and disadvantages of BUS, STAR and RING topology.
      (c)   Explain *n*-Tier client-server architecture in detail

4   Discuss any **four** of the following :   5×4=20
      (a)   DHTML
      (b)   WWW
      (c)   FTP
      (d)   Data Management
      (e)   MS Windows
      (f)   MS Power Point.

5   Write short notes on any **four** :   5×4=20
      (a)   MP3 & AVI
      (b)   ERNET
      (c)   E-Commerce
      (d)   MPEG
      (e)   E-Governance
      (f)   Digital Signature.

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