UNIVERSITY OF NORTH BENGAL

B.Sc. Honours Part-III Examination, 2021

COMPUTER SCIENCE

PAPER-V

Full Marks: 100

ASSIGNMENT

The figures in the margin indicate full marks.
All symbols are of usual significance.

Answer any *four* questions of the following   25×4=100

1. (a) Define Register. Discuss the significance of the registers in a computer system.   5
   (b) Design a bus system of four register using multiplexers.   10
   (c) Write a short note on cyclic redundancy check.   5
   (d) Discuss the DDA line drawing algorithm.   5

2. (a) Explain the various addressing modes of 8085 microprocessor.   10
   (b) Write a short note on cache memory.   5
   (c) Discuss various network topologies.   10

3. (a) Explain I/O mapped I/O and memory mapped I/O with their advantages and disadvantages.   10
   (b) Discuss the various phases of instruction cycle.   10
   (c) Write a short note on animation.   5

4. (a) Write a short note on PSW.   5
   (b) Define hit ratio. Discuss various cache mapping technique.   12
   (c) Discuss some guided and unguided media for communication.   8

5. (a) State the function of ALE pin of 8085 MPU.   5
   (b) Write a short note on virtual memory.   5
   (c) Differentiate LAN, MAN and WAN briefly.   5
   (d) Discuss various 2D geometric transformation operations in computer graphics.   10

6. (a) Write a short note on 'Assembly Language Program'.   6
   (b) Differentiate between 'Microprogrammed control unit' and 'Hardware control unit'.   6
   (c) Explain the OSI model for communication network.   10
   (d) State the significance of homogeneous co-ordinate system.   3

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