

UNIVERSITY OF NORTH BENGAL

B.Sc. General Part-II Examination, 2022

COMPUTER SCIENCE

PAPER-V

Time Allotted: 2 Hours Full Marks: 50

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

GROUP-A

(COMPUTER ORGANIZATION)

1. Answer any *five* questions:

 $5 \times 5 = 25$

- (a) What is meant by an instruction cycle? Describe its phases briefly.
- (b) What does memory hierarchy mean? What is its significance?
- (c) Explain the synchronous and asynchronous I/O technique.
- (d) With the help of a block Schematic, explain the basic organizational units of a digital computer.
- (e) Explain the characteristics of RISC and CISC systems.
- (f) How Floating point numbers are represented in computer system. Explain with example.
- (g) Explain DMA method of data transfer in detail.
- (h) Explain various types of buses in a computer system.

GROUP-B

(SYSTEM ANALYSIS AND DESIGN)

2. Answer any *five* questions :

 $5 \times 5 = 25$

- (a) Explain Classical waterfall model.
- (b) Explain the role of System Analyst.
- (c) Explain different data gathering techniques.
- (d) Explain different types of module coupling.
- (e) What is the purpose of testing? Discuss Alpha and Beta Testing.
- (f) Write short note on system maintenance.
- (g) Explain black-box testing methods.
- (h) Write short notes on DFD.

____x___

2121