FD-2760

B.Sc./B.Sc. B.Ed. (Part-III)
Examination, 2022

MATHEMATICS

Optional

Paper - III (A)

Principles of Computer Science

Time : Three Hours]   [*Maximum Marks* : 50

Note : Answer any **two** parts from each question. All questions carry equal marks.

Unit-I

1. (*a*) What is Mass storage ? Explain magnetic system and optical system.

   (*b*) Explain binary overflow and underflow.

   (*c*) What is Direct Memory Access also explain about Handshaking.

DRG_279_(3) *(Turn Over)*

Unit-II

2. (*a*) Explain Operating System Architecture.

   (*b*) What is Interrupt ? Explain with example.

   (*c*) What are the different types of requirements in Software Engineering ? Explain in detail.

Unit-III

3. (*a*) Explain the concept of an Algorithm.

   (*b*) What is Insertion Sort ? Write an algorithm of Insertion Sort.

   (*c*) What is Programming Language ? Explain Programming Paradigm.

Unit-IV

4. (*a*) What is Tree ? Explain the concept of Siblings, Leaf node, Terminal node, Depth of tree with neat diagram.

   (*b*) What is Hashing ? Explain the concept of Hashed Files.

   (*c*) What is Database Management System ? Explain the role of Schema in Database.

Unit-V

5. (*a*) What is Artificial Intelligence ? Explain application of Artificial Intelligence.

(*b*) Explain the concept of Artificial Neural Network.

(*c*) Describe non computable function and halting problem.

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