Roll No…….. **Total No. of Printed Pages: [1]**
Total No. of Questions: [09]

B.Sc. IT (Semester – 1st)
DEVELOPING PROGRAMMING LOGIC AND TECHNIQUES
Subject Code: BITE1-102
Paper ID: [130402]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

SECTION - A **(2 marks each)**

Q1. Write the followings:
   a. Difference between Assembly language and High-level language.
   b. Difference between compiler and interpreter
   c. List few characteristics of good language?
   d. What are advantages of algorithms?
   e. What is operator precedence?
   f. What is the purpose of break statement?
   g. Define 2D array?
   h. What is difference between searching and sorting?
   i. What is type casting?
   j. Why is go-to statement avoided in programming?

SECTION - B **(5 marks each)**

Q2. Explain the complete process of execution of a program with the help of suitable diagram.
Q3. What is an algorithm? How algorithm is different from pseudo code? Give example
Q4. Writ an algorithm for multiplication of two matrices of equal size.
Q5. Discuss the various operations that can performed on the array with the help of suitable example.
Q6. Discuss the feature and advantages of modular programming.

SECTION - C **(10 marks each)**

Q7. Explain different types of programming languages along with the features of each type of languages.
Q8. What is the difference between linear search and binary search. Write complexity of both the algorithms.
Q9. Write a short note on
   a. Algorithm Complexity
   b. Difference between nested if statement and ternary operator