2025

(November-December)

MATHEMATICS
Paper: SEC-MTH-101

Computer Laboratory-I

Time: 2 Hours　　　　**Total Mark: 45**　　　　**Pass marks: 14**

(The figures in the right margin indicate full marks of the questions)

1. Choose the correct option:　　　　　　　　　　1×4=4

   i)　With reference to C language, which of the following arithmetic operations does the symbol '%' signify?

   　　a) Division　　　　　　b) Multiplication

   　　c) Modulo Division　　d) Addition

   ii)　An _____ is a finite set of precise instructions, used to solve a class of specific problems or to perform a computation (Fill in the blanks).

   　　a) Operation　　　　　b) Algorithm

   　　c) Iteration　　　　　d) Optimisation

   iii)　Which of the following is **NOT** a C-token?

   　　a) Strings　　　　　　b) Constants

   　　c) Keywords　　　　　d) Flowchart

   iv)　In C, a collection of elements of the same data type is known as _____. (Fill in the blank)

   　　a) Token　　　　　　　b) Array

   　　c) Queue　　　　　　　d) Tree

2. Answer the following questions:
   a) What are the functions of break statement and continue statement in C?   2
   b) Write an Algorithm to obtain the quotient when one number is divided by another.   3
   c) Describe the initialization of 2-Dimensional arrays.   4

3. Answer the following questions:
   a) Write a note on 'decision making with if statement' in C.   3
   b) Define Flowchart. Draw a Flowchart depicting how the maximum of three numbers can be obtained.   2+6=8

   OR

   4×2=8

   Write short notes on the following:
   i) Conditional Operators
   ii) Increment and Decrement Operators

   c) Write a note on the if...else statement used in C, with an appropriate flowchart.   6

   OR

   Describe the nested if...else statement in C. Draw an appropriate flowchart to explain the same.   6

   d) Arrays can be initialized at two primary stages during program execution. Describe each in detail.   7

   OR

   Write a note on the declaration of 1-Dimensional arrays.   7

   e) What are keywords and identifiers? Mention the rules for naming identifiers in C.   3+5=8

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