

Roll No. :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

AFMA-273

M.A./M.Sc. (Final) Examination, 2023

MATHEMATICS

Paper - Opt.-VIII

(Computer Applications)

Time : 3 Hours]

[Maximum Marks : 70

Section-A

(Marks : 1 × 10 = 10)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **1** mark.

Section-B

(Marks : 3 × 5 = 15)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit **50** words). Each question carries **3** marks.

Section-C

(Marks : 15 × 3 = 45)

Note :- Answer any *three* questions out of five (Answer limit **500** words). Each question carries **15** marks.

Section-A

1. (i) What is bitwise operator ?
- (ii) What is Buffer ?
- (iii) What does a header file contain ?

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- (iv) How do we define an array ?
- (v) How does structure in C differ from that of structure in C++ ?
- (vi) What is memory leak ?
- (vii) What is mutable data member ?
- (viii) Can a constructor be overloaded ?
- (ix) What is conversion function ?
- (x) What do you mean by inheritance ?

Section-B

2. Explain the difference between error and warning.

Or

Discuss the various unary operators.

3. Define Streams. What are the different types of streams ?

Or

Define looping. What are the different types of loop statements available in C++ ?

4. What do you mean by function overloading ? When do we need it ?

Or

What are two dimensional array ? How are their elements accessed ?

5. What is Structure ? How is it declared ?

Or

Explain how a pointer to a function can be declared in C++ ?

6. What are advantages and disadvantages of default constructor ?

Or

Explain the concept of protected inheritance using example.

Section-C

7. Explain the following :
 - (a) Break and continue
 - (b) Conditional operator
 - (c) and if else statement
8. Discuss advantages and disadvantages of inline functions.
9. Explain the following :
 - (a) Scope and lifetime of a variable
 - (b) Automatic variable
 - (c) Recursion
10. Explain the following :
 - (a) Public member function
 - (b) Private member function
 - (c) Copy constructor
11. Explain the following :
 - (a) Multiple inheritance
 - (b) Multilevel inheritance
 - (c) File mode