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Total No. of Questions : 11]

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ASP-651

M.A./M.Sc. (Final) Examination, 2021

MATHEMATICS

Paper - Opt.-VIII

(For DUE Paper-X)

(Computer Applications)

(Only for Regular)

Time : 1½ Hours]

[Maximum Marks : 70

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

(खण्ड-अ)

(अंक : 2 × 10 = 20)

नोट :- सभी दस प्रश्नों के उत्तर दीजिए (उत्तर-सीमा **50** शब्द)। प्रत्येक प्रश्न **2** अंक का है।

Section-B

(Marks : 4 × 5 = 20)

Note :- Answer all *five* questions. Each question has internal choice. (Answer limit **200** words). Each question carries **4** marks.

(खण्ड-ब)

(अंक : 4 × 5 = 20)

नोट :- सभी पाँच प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न में विकल्प का चयन कीजिए। (उत्तर-सीमा **200** शब्द)। प्रत्येक प्रश्न **4** अंक का है।

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Section-C**(Marks : 10 × 3 = 30)**

Note :- Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

(खण्ड-स)**(अंक : 10 × 3 = 30)**

नोट :- पाँच में से किन्हीं **तीन** प्रश्नों के उत्तर दीजिए (उत्तर-सीमा **500** शब्द)। प्रत्येक प्रश्न **10** अंक का है।

Section-A

2 each

1. (i) Define Cache Memory.
- (ii) What is the role of Assembly Language Programming ?
- (iii) Mention the Data Types in C++.
- (iv) Give an example of Procedural Language. Why it is called so ?
- (v) What is the purpose of Inheritance ?
- (vi) What is a String Variable ?
- (vii) Why is a Control Structure used ?
- (viii) What is the need of defining functions ?
- (ix) Define the word class in C++.
- (x) Give an example of using a Constructor.

Section-B

4 each

2. Discuss Address Data Bus in a Computer.

Or

Explain how a Compiler Processes a Program.

3. Write a note on types of Inheritance.

Or

Explain Polymorphism giving an example.

4. Give an example of each of the following :

- (i) Logical Expression
- (ii) Relational Expression

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Or

Write a brief note on Operator Precedence.

5. Write a program to find the sum of first n natural numbers.

Or

Distinguish between Passing By Value and By Reference.

6. Discuss function overloading giving an example.

Or

Explain Pointers giving a suitable example.

Section-C

(खण्ड-स)

10 each

7. (a) Write a brief note on Computer Languages.
(b) Discuss Memory Management in Computers.
8. Write a brief note on benefits and applications of Object Oriented Paradigm (OOPs).
9. Explain each of the following (in C++) :
- (i) Character Set
 - (ii) Type Conversion
 - (iii) Abstract Data Types
 - (iv) Conditional Operator
10. (a) Discuss the syntax of while and do while.
(b) Giving an example, discuss the importance of Arrays.
11. (a) Discuss Inline Functions and their use.
(b) Write a note on Friend Functions.