

Roll No.

Total No. of Questions : 09]

[Total No. of Pages : 02

Paper ID [B0107]

(Please fill this Paper ID in OMR Sheet)

MCA (Sem. - 2nd)

OBJECT ORIENTED PROGRAMMING USING C++ (MCA - 202)

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Attempt any one question from each Sections A, B, C & D.
- 2) Section - E is **Compulsory**.

Section - A

(1 × 10 = 10)

- Q1)** Compare object oriented programming with functional programming.
- Q2)** (a) What is type conversion? What are differences between silent conversion and explicit type conversion?
(b) Write a program to find whether the number entered by the user is a palindrome or not.

Section - B

(1 × 10 = 10)

- Q3)** (a) What are macros? Write a program to find the minimum of two numbers using macros?
(b) What is runtime memory management? What support is provided by C++ for this? Explain.

- Q4)** Explain the concept of nesting of structures in two different ways with the help of example(s).

Section - C

(1 × 10 = 10)

- Q5)** Explain with the help of a single program the concepts of objects as parameters, friend functions, constructor overloading and destructors.

- Q6)** Write short notes on:-

- (a) Container Class
- (b) Types of Derivations

Section - D

(1 × 10 = 10)

Q7) Explain the concept of operator overloading for a binary operator for a non-friend function.

Q8) Write short notes on:-

- (a) Random access file processing (b) Early binding vs Late Binding

Section - E

(10 × 2 = 20)

Q9)

- a) What are conditional statements? Give example.
- b) What are the various forms of integer constant?
- c) What are the features of **iostream.h** file?
- d) What are the advantages of recursion?
- e) What is the difference between a subscript and subscripted variable?
- f) What is the difference between “is-a” and “has-a” relationship?
- g) What is the difference between the various styles of constructor initialization?
- h) What are the different forms of inheritance?
- i) List ways to open a file.
- j) What is a virtual function?

