

MCA-10

June - Examination 2016

MCA IInd Year Examination**Object Oriented Programming Through C++****Paper - MCA-10****Time : 3 Hours]****[Max. Marks :- 80**

Note: The question paper is divided into three sections A, B and C. Write answers as per given instructions.

Section - A**8 × 2 = 16**

(Very Short Answer Questions)

Note: Answer **all** questions. Limit to 30 words.

- 1) (i) What is void pointer?
- (ii) What is syntax for declaration of a class?
- (iii) What is pure virtual function?
- (iv) Define the mode specifiers in file handling in C++.
- (v) What is copy constructor?
- (vi) What are static member variables and functions?
- (vii) Distinguish between data abstraction and data encapsulation.
- (viii) What is type cast operator?

Section - B**4 × 8 = 32**

(Short Answer Questions)

Note: Answer **any four** questions. Limit to answer questions is 200 words.

- 2) What is friend function? Explain with example.
- 3) Write short note on:
 - (i) Exception handling in C++
 - (ii) Templates
- 4) Differentiate between:
 - (i) Objects and classes
 - (ii) Inline function and macro
- 5) What is goto statements in C++? Explain.
- 6) Explain following with their syntax:
 - (i) Array of structure
 - (ii) Pointer to structure
- 7) Explain the process of creating and destroying objects dynamically using “new” and “delete” operators.
- 8) Is there any difference between structure and union in C++? Explain.
- 9) What is multilevel inheritance? Explain with suitable example.

Section - C**2 × 16 = 32**

(Long Answer Questions)

Note: Answer **any two** questions. Limit to answer a question is 500 words.

- 10) What is polymorphism? How is it achieved at compiled time and run time? Explain both with the help of example.
 - 11) Explain constructors with suitable example. Also describe the role of destructors in C++ language.
 - 12) What are abstract classes? Explain the role of abstract class while building the class hierarchy.
 - 13) What is inheritance? What are the various forms of inheritance? Explain each with the help of examples.
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