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Total No. of Questions: 13] [Total No. of Pages: 02

J-3534[S-1390]

[2037]

MCA (Semester - 2nd)

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

Time: 03 Hours Maximum Marks: 75

Instruction to Candidates:

- 1) Section-A is **compulsory**.
- 2) Attempt any **Nine** questions from Section-B.

Section - A

 $Q1) (15 \times 2 = 30)$

- a) Differentiate between class and object.
- b) What do you mean by header file?
- c) Write down the uniqueness of inline functions.
- d) What do you mean by data hiding in C++?
- e) Discuss the use of inheritance in programming.
- f) What are function prototypes?
- g) What is the significance of access specifiers in a class?
- h) What are some advantages/disadvantages of using friend functions?
- i) How many ways are there to initialize an int with a constant?
- j) Write a declarator for a pure virtual function called purevar() that returns type void and takes one argument of type int.
- k) What do you mean by pure virtual function?
- 1) Can I overload the destructor for my class? Support your answer.
- m) What do you mean by new and delete operator?
- n) Give an advantage of having classes in a program.
- o) Differentiate between macros and functions?

Section - B

 $(9 \times 5 = 45)$

- **Q2**) Describe how Object Oriented System development is different from traditional procedure oriented software development.
- Q3) What is an enumerated data types? How is it useful?
- *Q4*) What is the difference between Static binding and Run time binding? Explain with a suitable C++ code.
- **Q5**) Explain multilevel inheritance and multiple inheritance with suitable examples.
- **Q6**) Write a program to copy contents of one file to another.
- Q7) Explain the use of this pointer through an example.
- Q8) Describe operator overloading. Give suitable example.
- Q9) Write a program to find the factorial of a number using recursion.
- *Q10*) Create String Comparison. String Concatenation and String Length functions using pointers.
- Q11) What is meant by abstract base class? Explain.
- Q12) Explain the differences between passing arguments "by reference" and "by addresses" to functions.
- Q13) What is the difference between header files and library files?

