

Total No. of Questions : 12]

SEAT No. :

P4942

[Total No. of Pages : 2

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F.Y. M.C.A. (Engineering)

OBJECT ORIENTED PROGRAMMING

(2019 Pattern) (Semester - I)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Neat diagrams must be drawn wherever necessary.
- 2) Figures to the right side indicate full marks.
- 3) Assume suitable data if necessary.

- Q1) a) Distinguish between following term [6]
i) Classes and objects
ii) Data abstraction and data encapsulation
b) Discuss the significance of Input/Output operation in C++ and their equivalence with 'C'. [5]

OR

- Q2) a) Explain the basic concepts and features of OOP. [6]
b) What do you mean by dynamic binding? How is it useful in OOP? [5]
Q3) a) Explain different data types in C++. [6]
b) Explain any 3 looping statement in C++ with example. [6]

OR

- Q4) a) What is a constructor ? Discuss its types with suitable examples. [6]
b) Write a C++ program to overload area function to calculate area of 3 geometrical shapes. [6]

- Q5) a) Explain the concept of Inheritance in C++ with a suitable example. What are its types? [6]
b) What is difference between overloading and overriding with example. [6]

OR

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- Q6) a) Explain how to create abstract class? Explain its practical application. [6]
b) Write a C++ program to add the complex numbers using binary operator overloading. [6]

- Q7) a) What is friend function? What is difference between friend and static function? [6]
b) What are virtual function and virtual destructor? [5]

OR

- Q8) a) Explain the concept of 'this' pointer. [6]
b) State any eight rules of writing virtual functions. [5]

- Q9) a) What is Standard Template Library? How is it different from the C++ Standard Library? [6]
b) What is exception handling ? Explain types of exception handling and explain suitable example. [6]

OR

- Q10) a) Write a program to implement Map using STL. [6]
b) Explain Generic functions and Generic class. [6]

- Q11) a) Compare the following built-in function of file stream classes. [6]
i) get() and getline()
ii) get() and read()
b) Explain command line arguments in C++. Write program to explain the same. [6]

OR

- Q12) a) Write a program to create a file ,read and write the record in it. [6]
b) Explain different error handling functions for file stream. [6]



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