M.Sc. First Semester (Applied Electronics) (New) (CBS)

15003 : Objected Oriented Programming C++ : 1 AE 3

P. Pages : 2 | AU - 3178

Time : Three Hours | Max. Marks : 80

* 0 4 1 8 *

Notes : 1. Due credit will be given to neatness and adequate dimensions.
2. Assume suitable data wherever necessary.
3. Illustrate your answer necessary with the help of neat sketches.
4. Use of pen Blue/Black ink/refill only for writing book.

1. a) Explain the following in short with respect to object oriented programing. 8

   i) Data abstraction.

   ii) Inheritance.

   iii) Polymorphism.

   iv) Encapsulation.

   b) What is structured programing? How OOP is different from structured programing. 6

OR

2. a) What is meant by procedural programing? 7
   Write the advantages of OOP over procedural programing.

   b) What is code reusability? How is it achieved in OOP? Explain. 7

3. a) Explain with example. 8

   i) In line function.

   ii) Default arguments.

   b) What is function overloading? Explain with suitable example. 6

OR

4. a) Explain operator overloading. Write the rules for operator overloading. Which operators can not be overloaded? 8

   b) Explain. 6

   i) Function prototype.

   ii) Scope resolution operator.

5.	a)	What is a constructor? What is its role? Explain copy construction with examples.	7
	b)	Explain friend function with example.	6

OR

6.	a)	How do we create an array of objects? Explain with suitable example.	7
	b)	Explain static members used in a class	6
7.	a)	Explain multiple inheritance with suitable example.	7
	b)	What is virtual class? Explain abstract base class. 'Give example.	6

OR

8.	a)	What is access specifier? Write and explain different access specifiers used in C++.	7
	b)	Explain the how constructors and destructors are used in inheritance.	6
9.	a)	Explain polymorphism. How virtual functions are used to implement dynamic polymorphism.	7
	b)	Explain generic function.	6

OR

10.	a)	Explain obstruct base class.	6
	b)	Explain generic class.	7
11.	a)	Explain how are can define our own insertion/ extractor operator. Give example.	7
	b)	Create an output stream to store a character text.	6

OR

12.	a)	What is manipulator? Give any six manipulators and state their use.	6
	b)	Explain how a stream is used to in error handling.	7

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