2012

M.Sc.

3rd SEMESTER EXAMINATION

COMPUTER SCIENCE

PAPER—COS-302

Full Marks : 50

Time : 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Module–I
(*Object Oriented Programming*)

[Marks-25]

Answer any *four* questions.

1. (a) What is function overriding ? How is it differs from function overloading.

   (b) Explain the role of 'Protected' access specifiers in Inheritance.   2+3

2. What is name space ? What is inline function ? Write down the difference between inline function and normal function.

$$2+1\frac{1}{2}+1\frac{1}{2}$$

(Turn Over)

3. What is Exception ? Write down the difference between exception and error ? What is default constructor and default argument constructor.

1+1+3

4. (a) What happens when the 'new' operator fails to allocate required amount of memory from the heap.

   (b) Explain the purpose of 'set-new-handler' function.

2+3

5. (i) What is virtual base class ? and Explain with an example ?

   (ii) Explain the property of static.

2+3

6. (a) Describe briefly the different ways to pass the class objects to function definitions.

   (b) How can we make a constant member function to change the value of its class's data members ?

3+2

[Internal Assessment — 5 Marks]

Module–II

(*Advance Java*)

[Marks–25]

Answer any *four* questions.

7. (a) What is the difference between an abstract class and an interface? Can abstract class and interface be used interchangeably.

   (b) What is Java Package? Illustrate with suitable example.

   3+2

8. (a) What do you mean by implicit and explicit type conversions? Illustrate with suitable example for each case.

   (b) Why do we use 'super' keyword in Java. Explain.

   3+2

9. (a) Briefly explain the thread life cycles in JAVA.

   (b) What is the difference between sleep() and wait() method?

   3+2

10. What is method overriding? Explain it with a suitable programme.

   2+3

(Turn Over)

11. (a) Is error and exception, a synonym of each other is relation with Java program? Briefly explain in support of your answer.

(b) How does Java program ensure write once Run anywhere (WORA) philosophy.

2+3

12. Difference between Applet and Application programme? Write a programme that will accept a command line argument and display the same argument.

2+3

[Internal Assessment — 5 Marks]