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 1/2 + 1 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.  

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.  

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

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

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

C/12/M.Sc./3rd Seme/COS-302  
(Turn Over)
11. (a) Is error and exception, a synonym of each other in 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]