(Pages : 2) **8804**

Reg. No. : .....

Name : .....

Fifth Semester B.Tech. Degree Examination, December 2015
(2008 Scheme)
08.506 : OBJECT ORIENTED DESIGN AND JAVA PROGRAMMING (R)

Time : 3 Hours Max. Marks : 100

PART – A

Answer **all** questions.

1. Explain how platform independence is achieved in Java.
2. List the main features of Java.
3. Explain the two uses of s*ynchronized* keyword, with examples.
4. Give the uses of *super* keyword, with examples.
5. Can a nested class have access to the members of the class in which it is nested ? Can the enclosing class have access to the members of nested class ? Explain.
6. Explain the use of StringBuffer class in Java.
7. Give the uses of the AWT controls : List, Choice and Checkbox.
8. Why reusability is important ? How does object oriented software development promote reusability ?
9. Define static and dynamic models.
10. Differentiate between patterns and frameworks. **(10×4=40 Marks)**

PART – B

Module – I

11. a) Explain in detail about UML diagrams.

    b) Briefly explain object oriented design process in unified approach and apply the same for railway reservation system.

OR

12. Explain in detail about Rambaugh and Booch methods of OOMD.

P.T.O.

Module – II

13. a) Explain overloading and overriding in Java, with examples.

    b) Create a class SavingsAccount. Use a static class variable to store the annualInterestRate for each of the savers. Each object of the class contains a private instance variable savingsBalance indicating the amount the saver currently has on deposit. Provide method calculateMonthlyInterest to calculate the monthly interest by multiplying the balance by annualInterestRate divided by 12; this interest should be added to savingsBalance. Provide a static method modifyInterestRate that sets the annualInterestRate to a new value. Write a driver program to test the class SavingsAccount. Instantiate two different savingsAccounting objects, saver1 and saver2, with balances 2000 and 3000 respectively. Set annualInterest Rate to 4%, then calculate the monthly interest and print the new balances for each of the savers.

OR

14. a) Write a program that accept N names, and display in ascending order.

    b) Explain how packages are created and used in Java, with examples.

Module – III

15. a) Explain thread handling using i) Thread class and ii) Runnable interface, with suitable examples.

    b) Explain the types and uses of Statement class in Java. Explain how dynamic queries are executed, with examples.

OR

16. a) Write an applet that simulates a desk calculator, using AWT controls and event handling. It accepts two numbers from the user and performs computation (+, –, *, /) based on the choice and displays the result.

    b) Briefly explain swing in Java, with examples. **(3x20=60 Marks)**