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Max. Marks: 80

Time: 3 Hours

## SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.Tech-IT

Title of the Paper: Programming in Java

Sub. Code: 412504-512504

Date: 10/11/2010 Session: FN

## PART - A (10 X 2 = 20)Answer ALL the Questions

- 1. What is byte code?
- 2. "Java is robust" comment.
- 3. What is the use of this keyword?
- 4. Define interface.
- 5. What is multi threading?
- 6. Distinguish between applet and application.
- 7. What is event programming?
- 8. Define adapter class.
- 9. What is an exception?
- 10. What are streams?

## PART - B (5 x 12 = 60) Answer All the Questions

- 11. (a) Explain the features of Java.
  - (b) Give the structure of Java program.

(or)

- 12. (a) Distinguish between arrays and strings.
  - (b) Explain the methods available in the StringBuffer class.
  - (c) Explain the use of command line arguments with an example.
- 13. (a) Distinguish between instance methods and class methods.
  - (b) When do we declare a methods as 'final'.
  - (c) Implement a class Student. A Student has a name and a total quiz score. Supply an appropriate constructor and methods getName(), addQuiz(int score), getTotalScore() and getAverageScore(). To Compute the latter, you also need to store the number of quiz that the student took.

(or)

- 14. (a) Write a Java Program to implement nested packages.
  - (b) Describe the various ways of implementing interfaces. Give examples of Java code for each case.
- 15. (a) Why do applet classes need to be declared as public?
  - (b) Describe the different stages in the life cycle of an applet?
  - (c) Develop an applet that receives three numeric values as input from the user and then displays the largest of the three on the screen.

(or)

- 16. (a) Discuss the steps involved in loading and running a remote applet.
  - (b) Distinguish between start () and init() method.
  - (c) Develop an applet to display the message "INDIA is our country" and if should be scrolled. The message should be blue in

color and Font is Times new roman and size is 30. The background of the applet should be pink in color.

- 17. (a) What is the difference between a menu bar, a menu and a menuitem?
  - (b) Write a Java program to develop a calculator using AWT.

(or)

- 18. (a) Write a Java program to show the use of Button class.
  - (b) Explain how to handle scroll Bars.
  - (c) Explain handling events by extending AWT components.
- 19. (a) Discuss about PrintStream.
  - (b) Write a Java Program to find the second largest among given set of numbers using SequenceInputStream.

(or)

- 20. (a) Explain rethrow with an example.
  - (b) Write a Java Program to create a user defined exception whenever user input the string "hello".