Hall Ticket Number:

Code No. : 22112

VASAVI COLLEGE OF ENGINEERING (*Autonomous*), HYDERABAD
B.E. (C.S.E.) II Year II-Semester Main & Backlog Examinations, May-2017
Object Oriented Programming using Java

Time: **3** hours

Max. Marks: **70**

Note: Answer ALL questions in Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

1. Write single line definitions for four properties of Object oriented Programming.

2. How do you get the descriptive information about the Exception occurred during the program execution?

3. List all the collection classes which allow Sorting.

4. Can a class behave as an Observer and also be an Observable object, as mentioned below. Justify?

   public class Manager extends Observable implements Observer{//some logic here}

5. Specify the I/O filter used for File operations.

6. How are Serilizable and Externalizable different from one other?

7. Is it possible to create an Adapter class object for ActionEvent?

8. What is the relationship between paint() and repaint() method?

9. How would you detect a keypress in a JComboBox?

10. Which method do you use to add a menu bar to a top-level container such as a JFrame?

Part-B (5 × 10 = 50 Marks)

11. a) Give example of one situation where an interface can only be used to solve the problem and an example where only an abstract class must be used. [3]

    b) Declare a class called Book having book title & author name as members. Create a subclass of it, called BookDetails having price & current stock of book as members. Create an array for storing details of n books. Define methods to achieve following: [7]
    - Initialization of members
    - To query availability of a book by author name / book title
    - To update stock of a book on purchase and sell
    Define method main to show usage of above methods.

12. a) Given a list of Employee objects where each objects has the following members [7]
    Employee1 ("Ashok", "1234", ashok@abcdcorp.com, "Senior Developer", 1000000)
    Employee2 ("Suresh", "1212", suresh@abcdcorp.com, "Lead Developer", 1500000)
    Employee3 ("Rahul", "1345", rahul@abcdcorp.com, "Architect", 2200000)
    Employee4 ("Ghouse", "1414", ghous@abcdcorp.com, "Test Lead", 1300000)
    Employee5 ("Sanjana", "1004", sanjana@abcdcorp.com, "HR Manager", 1000000)
    Employee6 ("Anagha", "1841", anagha@abcdcorp.com, "Developer", 800000)
    Write a Java program to search for all "Developer" profiles and sort (ascending) them according to their Salary

    b) Specify the role of Wrapper classes in Java [3]

13. a) How does InputStream.read() method work? Can you give some sample code? [5]

    b) Is it possible to change directory by using File reference? Explain. [5]

14. a) Write a program to create a Frame with exit capabilities. Handle events for mouse [6] pressed, mouse released, mouse clicked and mouse dragged by displaying appropriate message describing the event at the coordinates where the event has taken place.

   b) Explain various methods called during execution cycle of the applet. Also explain [4] BorderLayout.

15. a) Let us assume a frame object is created with the name F. Write a code snippet for the [5] action part of closing the frame using anonymous inner class method argument.

   b) Given a list of rows and columns of information available in a file or a database, using [5] the appropriate Swing class, write a Java program to display the content in a JApplet

16. a) With a neat diagram, elucidate the process of Garbage collection in Java. [5]

   b) Explain utility class HashMap and its application with an example. [5]

17. Write short notes on any *two* of the following:

   a) Thread Synchronization. [5]

   b) Adapter Class. [5]

   c) JColorChooser class. [5]

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