SUMMER-2013

UNIT 1

Q.1 a) Which is object-oriented programming paradigm? How does it differ from procedure-oriented programming Approach? **(7)**

b) Write 'for' loop and 'while' loop statements to computer the sum of odd integers greater than 100 and less than 200. **(6)**

Q.2 a) What is primitive data type conversion and how does it differ from casting explain it with an example. **(6)**

b) Given marks range of students, write a program to print grades of students with switch case statement:

100 – 80 : Honour Grade

79 – 60 : First Division

59 – 50 : Second Division

49 – 40 : Third Division

Otherwise fails. **(7)**

UNIT 2

Q.3 a) What is constructor? Write a Java application which demonstrates constructor overloading. **(7)**

b) Explain the difference between class data value and instance data value with an example. **(6)**

Q.4 a) What is Garbage collection? How unused objects are cleaning-up with Garbage collector and finalization. **(7)**

b) Explain use of self-reference pointer with an example. **(6)**

UNIT 3

Q.5 a) Explain the following terms with example:

i. Final method and final class

ii. Abstract method and abstract class. **(8)**

b) Define a class MotorVehicle with data members ModelName, ModelNumber, ModelPrice and display ( ) method to display name, number and Model price.

Define another class named car that inherits the class MotorVehicle with data members discount rate and method display ( ) to display CarName, CarModel, number, CarPrice and discount rate, Discount ( ) method to compute the discount. **(6)**

Q.6 a) Write an application in Java to design a simple calculator with interface. Also explain how interfaces supports to implement multiple inheritance. **(6)**

b) Explain the following methods string class with prototype and example:

i. chart ( ) **ii.** equals ( ) **iii.** trim ( ) **iv.** substring ( )

(8)

UNIT 4

Q.7 a) What is Exception Handling Mechanism? Write an application which handles Arithmetic and Array Index out Bounds Exception. **(7)**

b) Write a Java program to create file object and methods of file class to obtain its properties. **(6)**

Q.8 a) Explain the following terms: **(6)**

i. try **ii.** catch **iii.** throw **iv.** throws

v. finally.

b) Write a Java program to read character stream using FileReader. **(6)**

UNIT 5

Q.9 a) What is an Applet? How does it differs from application? Explain life cycle of Applet. **(7)**

b) Explain font and font metric class with its constructor and methods. **(6)**

Q.10 a) Write an applet which demonstrates use of get DocumentBase ( ) and getCodeBase ( ) methods. **(6)**

b) Explain color class with its all constructors and methods. **(7)**

UNIT 6

Q.11 a) Explain Delegation Event Model with example. **(6)**

b) Give suitable statements for each of the following task:

- **i.** Create a TextField with 20 character width and default text "Welcome to Java".
- **ii.** Create a list with five items and determine selected items from list.
- **iii.** Create three mutually exclusive checkboxes with first checkbox on.
- **iv.** Create Button labelled as "OK" and change label on Button "Its OK". **(8)**

Q.12 a) Explain the following terms:

- **i.** ActionListener
- **ii.** MouseListerner
- **iii.** WindowsListener
- **iv.** KeyListener. **(8)**

b) Integrate the procedure for creating MenuBar, Menu, MenuItem and checkable MenuItem on frame with example. **(6)**