

WINTER-2011

UNIT 1

Q.1 a) Explain the following:

i. Classes **ii.** Objects **iii.** Abstraction. (6)

b) Write 'for', 'do-while', and 'while' statements to compute the following product. $1 * 2 * 3 * \dots * 20$ (7)

Q.2 a) Why is Java known as platform-independent language. (7)

b) Explain the steps for executing a java program. What are the source files and byte code files? (6)

UNIT 2

Q.3 a) What is the purpose of 'this' Keyword? Explain with an example. (7)

b) Describe the difference between object declaration and object creation. Show a state-of-memory diagram after each of these statements is executed:

```
Person person1, person2;  
person1 = new Person ();  
person2 = new Person ();
```

 (6)

Q.4 a) What are command-line arguments and how are they used? (6)

b) What is method overloading? Explain with the help of program. (7)

UNIT 3

Q.5 a) Explain the purpose of super keyword with an example. (7)

b) What are abstract classes? Explain with an example. (7)

Q.6 a) Explain with an example the following string Buffer class operations:

i. append () **ii.** insert () **iii.** reverse () **(7)**

b) What do you mean by package? Explain the procedure for creating user defined package. **(7)**

UNIT 4

Q.7 a) Write a Java application that handles multiple exceptions. **(6)**

b) Write a Java program to read data to a file using File Input stream. **(7)**

Q.8 a) What is serialization and de-serialization? Explain with an example. **(6)**

b) Write a program to find the properties of a file like path of the file, file exists or not whether file or directory, length of the file, parent of the file, file last modified time. **(7)**

UNIT 5

Q.9 a) Give the sequence of methods which are called when an applet begins execution. Explain each method in detail. **(6)**

b) Write a simple applet that sets the foreground and background colors and outputs a string on the applet. **(7)**

Q.10 a) What are different parameters of APPLET tag? **(6)**

b) Write an applet to draw rectangle, rounded rectangles and a fill rectangle inside the applet's visible area. **(7)**

UNIT 6

Q.11 Write an applet to demonstrate the following operation. It displays the current coordinates of the mouse in the applet status window. Each time a button is pressed the word “Down” displayed at the location of the mouse pointer. Each time the button is released, the word “Up” is shown. If the button is clicked, the message “Mouse clicked” is displayed in the upper-left corner of the applet display area. As the mouse enters or exits the applet window, a message is displayed in the upper-left corner of the applet display area. When dragging the mouse, a * is shown, which tracks with the mouse pointer as it is dragged, (14)

Q.12 a) Explain declaration, creation and use of the following GUI objects.

i. Label. ii. Text Field. iii. Button. (7)

b) What are Adapter classes? Write an applet that implements mouse Clicked () of mouse Adapter and mouse Dragged () method of Mouse Motion Adapter. (7)