D: 23/09/16 SYCS-SEM IV-COMPUTER II-2¹/² HRS.- 75 MKS

Note: i) All questions are compulsory.

ii) Figures to the right indicate full marks.

Q.1 Attempt any Four. [20]

a) Write short note on JVM, JIT and JRE.

b) What do you mean by constructor? Also explain parameterized constructor with suitable example.

c) Why finalize() method is used in Java?

d) What are arrays? Explain one dimensional arrays in Java.

e) Explain all features of Java.

f) Write a short note on nested and inner classes in Java.

g) What do you mean by method overloading? Illustrate with example.

h) Differentiate between Java with C.

Q.2 Attempt any Four. [20]

a) Write a java program to find factorial of a given number. Number should be inputted by the user.

b) How interfaces can be used to support multiple inheritance. Develop a standalone java program to achieve the same.

c) Create a try block that is likely to generate three types of exception and then incorporate necessary catch blocks to catch and handle them appropriately.

d) What is an exception? Explain exception handling mechanism in java.

e) What is inheritance? What are its different forms? Develop a java program to achieve single inheritance.

f) What are the major differences between an interfaces and classes?

g) Explain dynamic method dispatch.

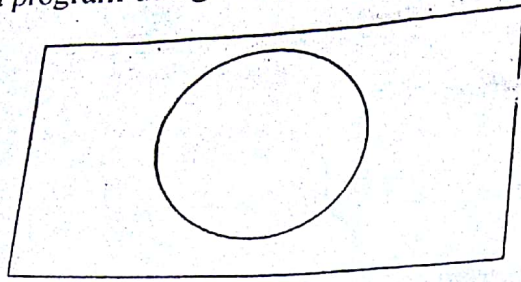h) What are input and output stream? List two methods of each class.

Q.3 Attempt any Four. [20]

a) Differentiate an applet with an application.

b) Write a short note on Windows Fundamentals.

c) Explain following AWT controls :

   i) TextField

   ii) CheckBoxGroup

   iii) List

d) Explain various Color methods used in Java.

e) Write a short note on BorderLayout and GridLayout.

f) Explain following Event Classes :

   i) KeyEvent

   ii) MouseEvent

g) Write a short note on Delegation Event Model.

h) Write a program using an applet to draw following:

[15]

Q. 4 Attempt any three.
a) Compare in terms of their functions, the following pair of statements.
  i) while and do...while
  ii) break and continue
b) Explain all types of visibility controls used in Java.
c) Write a short note on abstract methods and abstract classes.
d) What is a package? How do we design a package?
e) Explain applet life cycle.
f) Write an applet code to display a message "I am a Student" when a Key is pressed.