MCA (Revised) / BCA (Revised)

Term-End Examination, 2019

MCS-024 : OBJECT ORIENTED TECHNOLOGIES AND JAVA PROGRAMMING

Time : 3 Hours]

[Maximum Marks : 100

(Weightage 75%)

Note : Question **no. 1** is **compulsory** and carries 40 marks. Attempt **any three** questions from the rest.

1. (a) How String Buffer differs from String ? Write a program in Java, which takes your name as input and print it in upper case. [5]

   (b) How does Java handle events ? Write a program in Java to capture an event generated by keyboard. [5]

   (c) What are the uses of "this" keyword in Java ? Explain with the help of an example. What is an applet ? [5]

MCS-024/9500

(d) Write a program to generate a circle in an applet? [5]

(e) What do you understand by session tracking in Java? Discuss any technique, used for session tracking. [5]

(f) Differentiate between superclass and subclass. Write a program in Java to show the concept of reusability. [5]

(g) What is exception in Java? How exception handling is performed, demonstrate with an example? [5]

(h) Explain constructor overloading with suitable example. [5]

2. (a) What is checked exception in java? How it is different from unchecked exception? Explain briefly. [5]

(b) Write a Java program to find whether a given element is present in a integer array of size ten of not. [5]

(c) What is a layout manager ? Discuss the Flow layout and grid layout, give suitable example for each. [10]

3. (a) Briefly explain the role of following classes in Java Network programming : [5]

   (i) Socket

   (ii) Datagram Packet

   (b) What is the difference between a process and a thread ? Mention any three methods of thread class and describe them briefly. [8]

   (c) What is an event ? What are components of an event ? Differentiate between semantic event and low-level event. [7]

4. (a) Write a Java program to create shape class. Overload method area ( ) to calculate area of circle and rectangle. Define appropriate constructors in the program. [6]

   (b) What are Input stream and output stream classes in java ? List and explain any two methods of each class. [5]

(c) Explain how garbage collection takes place in java, also list advantages of garbage collection. [4]

(d) What is an interface ? Write a java program to show, how a class implements two interface.[5]

5. Write short notes on the following : [20]

(i) Java Beams and its advantages

(ii) Class and object

(iii) Applet Architecture

(iv) Access specifiers

(v) Bitwise operators in java

----- x -----