

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]



- (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 or 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 Beans and its advantages
- (ii) Class and object
- (iii) Applet Architecture
- (iv) Access specifiers
- (v) Bitwise operators in java

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