No. of Printed Pages: 3

MCS-024

## MCA (Revised) / BCA (Revised)

## **Term-End Examination**

June, 2018

07005

## MCS-024 : OBJECT ORIENTED TECHNOLOGIES AND JAVA PROGRAMMING

Time: 3 hours

Maximum Marks: 100

(Weightage 75%)

**Note:** Question no. 1 is **compulsory**. Attempt any **three** questions from the rest of the questions.

- 1. (a) What is method overloading? Explain with suitable example.
  - (b) What is an abstract class? How is it used to implement polymorphism in Java? Give suitable example in support of your answer.
    7
  - (c) What is JVM? Explain advantages of JVM. 3
  - (d) Differentiate between "Final", "Finally" and "Finalize" statements.
  - (e) Compare throw statement in Java with throws statement.

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	(f)	Explain container class in Java. Give its significance for Java GUI programming.	5
	(g)	What is public access specifier? How is it different from private access specifier? Explain with example.	5
	(h)	What is an applet? Explain various ways to execute an applet.	5
2.	(a)	What is servlet life cycle ? Explain GET and POST methods in servlet programming.	10
	(b)	What is import? Explain the need of importing a package in Java.	5
-	(c)	What is a classpath? Discuss the utility of classpath with suitable example.	5
3.	(a)	What is inheritance? How is inheritance related to interface? Explain, how multiple inheritance can be implemented using interface in Java. Give suitable example.	10
	(b)	Write a Java program to create a Teacher class and derive Professor/Associate_Professor/Assistant_Professor class from Teacher class. Define appropriate constructor for all the classes. Also define a method to display information of Teacher. Make necessary assumptions as	
		required.	10

4.	(a)	What are the features of Object Oriented Programming? Explain encapsulation and its advantages, with an example.	6
	(b)	How is String class different from StringBuffer class? Write a program in Java to find the length of a given string.	7
	(c)	Write a program in Java, to copy the text content of one file into another file.	7
5.	(a)	Explain each component of the statement "public static void main (string args [])".	6
	(b)	What is an event in Java? How does Java handle events? Write a program in Java, to capture any event generated by a keyboard.	7
	(c) <sub>.</sub>	What is exception in Java? What are the basic causes of occurrence of exception? Write a program in Java, to exhibit the concept of exception handling. Support your	
		program with suitable comments.	7