

CBCS Scheme

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16MCA32

Third Semester M.Tech. Degree Examination, Dec.2017/Jan.2018

Java Programming

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Briefly explain the characteristics features of java programming language. (06 Marks)
- b. What is type casting? Illustrate with an example. What is meant by automatic type promotion? Give an example. (06 Marks)
- c. Explain the use of 'this' keyword with suitable example. (04 Marks)

OR

- 2 a. Explain about the primitive data types available in Java. (06 Marks)
- b. Explain any four methods present in string buffer class. (06 Marks)
- c. Explain the working of enhanced for loop with example. (04 Marks)

Module-2

- 3 a. What is method overloading? Explain with example. (08 Marks)
- b. What is inheritance? Explain the order of constructor execution in multilevel hierarchy of classes. (08 Marks)

OR

- 4 a. What is method overriding? Explain with example. (08 Marks)
- b. What is polymorphism? Explain how to achieve runtime polymorphism in java with examples. (08 Marks)

Module-3

- 5 a. Define packages. Explain the access protection for class members with respect to packages. (06 Marks)
- b. Write a java program for implementation of multiple inheritance using interfaces to calculate the area of a rectangle and triangle. (06 Marks)
- c. Differentiate between abstract class and interface. (04 Marks)

OR

- 6 a. What is exception? Write a java program to define multiple catch blocks. (06 Marks)
- b. How to create user defined exceptions in java explain with example. (06 Marks)
- c. Differentiate between throw and throws. (04 Marks)

Module-4

- 7 a. Define a thread. Explain the two methods for creating threads. (08 Marks)
b. Write a java program to demonstrate producer consumer problem using synchronized threads. (08 Marks)

OR

- 8 a. What is enumeration? Explain values() and valuesOf() methods. (08 Marks)
b. What is autoboxing and auto unboxing in arithmetic expressions? Explain with example. (08 Marks)

Module-5

- 9 a. What is applet? Write a java applet program which handles keyboard events. (08 Marks)
b. Explain about the two types of TCP sockets used for networking in java. (08 Marks)

OR

- 10 a. What are collections? Write a program to demonstrate the linked list class. (08 Marks)
b. Write a java program which uses datagram socket to demonstrate client server communication. (08 Marks)
