

# CBCS SCHEME

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16/17MCA32

Third Semester MCA Degree Examination, Dec.2018/Jan.2019

## Java Programming

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. Explain the key attributes of Object Oriented Principles. (06 Marks)  
b. Explain the following : i) Type casting ii) this. (06 Marks)  
c. Explain the use of break as a form of 'goto' with an example. (04 Marks)

OR

- 2 a. Explain the left shift and right shift operators. (04 Marks)  
b. What is Enhanced for loop? Write a Java program to search an element in an array using enhanced for loop. (06 Marks)  
c. Write any three methods of String class to compare strings with syntax and example. (06 Marks)

### Module-2

- 3 a. Explain about static variable, static method and static block, with suitable example. (06 Marks)  
b. Explain about method overloading and constructor overloading, with suitable program. (06 Marks)  
c. What is varargs? What are the restrictions of varargs? (04 Marks)

OR

- 4 a. How Super class constructors and members are called in Java? (06 Marks)  
b. Explain the following :  
i) Dynamic method dispatch ii) Abstract class. (10 Marks)

### Module-3

- 5 a. What are Interfaces? How to implement multiple interfaces in Java? (06 Marks)  
b. Define a Package. Explain the creation of package using any example. (06 Marks)  
c. What do you mean by Static import? (04 Marks)

OR

- 6 a. What is an Exception? Give the general structure of an exception handling mechanism. How to define multiple catch blocks? (08 Marks)  
b. Explain how to create your own exceptions. Give an example. (08 Marks)

### Module-4

- 7 a. What is Synchronization? Explain how inter thread communication can be achieved in multithreading using Producer and Consumer Program. (10 Marks)  
b. Define Thread and Multithreading. What are the 2 ways of creating threads? (06 Marks)

OR

- 8 a. What is Enumeration? Explain values ( ) and valueOf ( ) methods with example. (08 Marks)  
b. Explain the following :  
i) Type Wrappers ii) Autoboxing and Autounboxing. (08 Marks)

**Module-5**

- 9 a. What are Applets? Explain the life cycle of an Applets using an example program. (08 Marks)  
b. Write a Java Program which uses DatagramSocket to demonstrate client – server communication. (08 Marks)

OR

- 10 a. Explain the following :  
i) URLConnection ii) Collection Interfaces. (08 Marks)  
b. Explain ArrayList class and LinkedList class, with suitable example. (08 Marks)

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