

# CBCS Scheme

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16MCA32

Third Semester MCA Degree Examination, June/July 2018

## JAVA Programming

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. List and explain key attributes of object oriented principles in JAVA. (08 Marks)  
b. Explain string Buffer and String Builder. (08 Marks)

OR

- 2 a. Write a JAVA program for matrix multiplication. (08 Marks)  
b. With example explain: i) Methods ii) Constructors. (08 Marks)

### Module-2

- 3 a. What is inheritance? With example list the types of inheritance supported in JAVA. (08 Marks)  
b. Write notes on: i) Polymorphism ii) Abstract classes. (08 Marks)

OR

- 4 a. Explain method overloading and constructor overloading with suitable example. (08 Marks)  
b. What are super class constructors? How does super class members are used in JAVA? (08 Marks)

### Module-3

- 5 a. What is interface? How does JAVA support multiple interfaces? Explain with example. (10 Marks)  
b. What are exceptions? Explain exception handling mechanism with example. (06 Marks)

OR

- 6 a. Define package. Explain how packages are created in Java. Explain with syntax. (08 Marks)  
b. Briefly explain built-in exceptions in JAVA. (08 Marks)

### Module-4

- 7 a. What is multi threading? Explain the benefits of multi threaded program. (10 Marks)  
b. Explain: i) values( ) ii) valueOf( ) (06 Marks)

OR

- 8 a. Explain the following:  
i) notify( ) ii) notifyAll( ) iii) wait( ) (09 Marks)  
b. Explain autoboxing and autounboxing with example. (07 Marks)

### Module-5

- 9 a. What are URL classes? Explain URL connections with syntaxes. (08 Marks)  
b. How does parameters passed in applets? Explain with example. (08 Marks)

OR

- 10 a. What are applets? Explain complete skeleton of applet. (08 Marks)  
b. Write notes on: (i) InetAddress class, ii) Socket class. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.