

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

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Bachelor of Computer Applications 5th Semester

1128

JAVA PROGRAMMING

Paper-BCA-16-503

Time Allowed : 3 Hours]

[Maximum Marks : 65

Note :- Attempt any **one** question each from Unit I-IV. Unit V is compulsory.

UNIT-I

1. (a) Write notes on the following : Byte code, Java Virtual Machine and Java development Kit. 6
- (b) Discuss the structure of Java Program and the steps to execute it. 7
2. What is inheritance ? What are various type of inheritance methods supported in Java ? How do you implement inheritance in Java Program ? How can you initialise base class data members via derived class constructors ? Discuss with help of Java code. 13

UNIT-II

3. (a) Write a Java Program to get the values of 3×3 matrix and find its transpose. 7
- (b) What are packages ? What are their types ? How do you use them in Java Program ? 6

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4. (a) Differentiate among String and StringBuffer class. 5
- (b) What are the various pre-defined streams in Java ? Discuss each one of them briefly. 4
- (c) What are interfaces ? How are they implemented in Java? 4

UNIT-III

5. (a) Discuss the Java Thread model. 7
- (b) What are the various ways to create a thread in Java ? Explain. 6
6. Write a Java Applet to draw various shapes like lines, rectangles, circles and ellipses. Write the steps to execute this applet. 13

UNIT-IV

7. What are Layout managers ? What is the benefit of using them? Discuss the various Layout managers supported by Java. 13
8. Discuss the JDBC architecture in detail. Write a Java program to create a connection with the database. Explain the various classes used in this program. 13

UNIT-V

(Compulsory Question)

9. (a) Why Java is considered a secure language ? 2
- (b) What is the use of Final Keyword ? 2
- (c) What is difference between interface and abstract class ? 2
- (d) How do you create user defined exception ? 2
- (e) Give some applications of Applet. 2
- (f) What is delegation event model ? 3