

Roll No. ...1558611.....



**97561**

**M. Sc. (Computer Science) 4th  
Semester (CBCS)**

**Examination – May, 2018**

**JAVA PROGRAMMING**

**Paper : M.Sc.401(HC) [17MCS24C1]**

***Time : Three Hours ]***

***[ Maximum Marks : 80***

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* questions in all. Question No. 1 is *compulsory*. In addition to *compulsory* question, student has to attempt *four* more questions selecting *one* question from each Unit. All question carry equal marks.

**1. Write short notes on :**

**2 × 8 = 16**

- (a) World Wide Web
- (b) Dynamic binding
- (c) package
- (d) Types of Exception

- (e) Thread Priorities
- (f) Applet Life cycle
- (g) AWT
- (h) Working with Fonts

## UNIT - I

2. Give a detail about the features of Java language. How some of these features enable Java to be used for Internet programming ? Explain. 16

3. (a) What do you understand by inheritance ? Explain various types of inheritance available in Java using examples. 12

(b) What is the phenomenon of short-circuiting ? 4

## UNIT - II

4. (a) What is Polymorphism ? How many types of polymorphism is possible in Java. Elaborate about upcasting used in polymorphism. 12

(b) How can we deal with exceptions in Java ? Explain. 4

5. Define package. What is the Java access protection in packages ? Explain how they control the access of data members and classes. 16

### UNIT – III

6. (a) What are Applets ? Explain the life cycle of an Applet using a simple example. 8
- (b) What is a multithreading ? How threads are used for responsive interface ? Also explain thread priorities 8
7. (a) Explain some methods of reading from the console. 8
- (b) Explain the Applet architecture and the HTML APPLET tag. 8

### UNIT – IV

8. (a) What are AWT classes ? What is their relation of AWT components with the Operating System ? 8
- (b) Write short notes on :  $2 \times 4 = 8$
- (i) Menus
- (ii) Window fundamentals
9. What are Layout Managers ? Explain any two layout managers in detail using suitable example. 16
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