

(Please write your Exam Roll No.)

Exam Roll No

Bharati Vidyapeeth's
Institute of Computer Applications and Management
A-4, Paschim Vihar, New Delhi-63
THIRD SEMESTER [MCA] Internal Examination, October-2015

Paper Code: MCA -205	Subject: Java Programming
Time: 2 Hours	Maximum Marks: 45
Note: Attempt THREE questions in all. Question No. 1 is compulsory and attempt one question from each unit.	

1. Answer all the following questions briefly: 1.5 x 10 = 15
 - (a) Discuss the advantage of this as a constructor call. 1.5
 - (b) Mention the significance of organizing code in packages. 1.5
 - (c) Distinguish between String, StringBuilder and StringBuffer. 1.5
 - (d) Compare throw and throws. 1.5
 - (e) A method is forced to declare all uncaught checked exceptions that are thrown within its scope. Discuss the advantage of this design policy. 1.5
 - (f) Differentiate between the working of templates of C++ and generics of Java. 1.5
 - (g) Identify which class is the immediate superclass of the Container class. What does this hierarchy signify? 1.5
 - (h) Draw a comparison between Comparable and Comparator interfaces. When would you use what? 1.5
 - (i) State the methods that should be overridden by a class (and the class / interface they belong to) so that its objects may be maintained in a HashSet. 1.5
 - (j) Can we call a non-static method from inside a static method? If yes how, if no why? 1.5

2. Answer any two of the following: 3x2=6
 - (a) Briefly explain the exception class hierarchy and its significance.
 - (b) You are to automate business processes of an Internet Service Provider. Identify at least five important classes in the system and state the relationships between the classes.
 - (c) Discuss the significance of interrupting a thread. What causes InterruptedException?

3. Use code snippets to answer any three of the following: 3x3=9
 - (a) You are given a GUI that has a List and a Label control. The list displays product names from an ArrayList of Product objects. Write the event handler that displays the price of the selected product on the Label.
 - (b) Function overriding happens even without the usage of @Override? Write a code snippet to demonstrate the importance of @Override annotation?
 - (c) Create a News Flash panel that displays news headlines stored in a string array, one by one, after fixed time intervals?
 - (d) Create a code snippet to call a database procedure CalculateScore (PlayerID IN NUMBER, AverageScore IN/OUT NUMBER, Selected OUT VARCHAR).

4. Implement any two of the following:

7.5x2=15

- (a) Construct an application to maintain Product, Supplier association in a TreeMap. You may assume that a product is supplied by one supplier only. The application should be able to
 - a. Add a Product, Supplier mapping
 - b. Lookup suppliers for a product.
- (b) Create an entity class Employee that uses PreparedStatement to implement functions save and searchByName.
- (c) Create a modal dialog InputBox that extends Dialog. The class should have a constructor that takes a String as a parameter to construct a dialog box that displays a text box (whose initial contents are specified by the string parameter) and OK & CANCEL buttons. The dialog box should get closed when either of the buttons is clicked. The class should have functions to:
 - a. Check which button was pressed by the user.
 - b. Retrieve the string entered by the user, if user pressed OK, null if user pressed CANCEL.Test this class to get a message from a user and display it on a Frame window

***** **Wish you Luck!** *****