Reg. No._____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

SECOND SEMESTER MCA DEGREE (REGULAR) EXAMINATION APRIL/MAY 2017

Course Code: RLMCA102

Course Name: OBJECT ORIENTED PROGRAMMING

Max. Marks: 60 Duration: 3 Hours

PART A

Answer All Questions, Each Question Carries 3 Marks.

1. Differentiate between method overloading and method overriding.
2. Explain the significance of 'this' and 'final' keyword with proper code fragments.
3. Explain how instance variables of a super class are initialized by a sub class constructor with an example.
4. Explain the principle of dynamic method dispatch used in Java. Write an example.
5. Differentiate between String class and String Buffer class. Write any two methods and its use in the String class and String Buffer class.
6. Write a Java program to throw an exception if the number interactively accepted is not a positive one.
7. Define object serialization. List the fields that cannot be serialized.
8. Write the four constructors used by DatagramPacket class and their uses.

PART B

Answer any one question from each module. Each question carries 6 marks

MODULE - I

9. a. Differentiate between Procedure Oriented and Object Oriented Programming. (4)
   b. Explain why Java is called a Platform Independent Language. (2)

OR

10. Explain how constructors are overloaded with an example.

MODULE - II

11. Design an application to display details of different types of publications- magazine, books and kids magazine. A publication has a publisher, no: of pages, a price and a title. A magazine is a kind of publication that has a publication unit monthly, weekly and bi-weekly. A book is a kind of publication that has an author. A kid's magazine is a kind of magazine that has a recommended age rate. Display the information sorted by title about a particular object.

OR

12. Design classes Square, Right Triangle and Triangle that encapsulates three geometric shapes. Each class should implement an abstract method ***void draw (int x, int y)*** that draws a square, a right triangle or an equilateral triangle pattern respectively. Each shape consists of drawing characters '*', '%' and '#' respectively. Variables x and y represents the number of characters along horizontal and vertical directions respectively.

MODULE – III

13. Explain the steps of adding classes to a package with an example.

OR

14. Explain the different levels of access protection available for packages in Java

MODULE – IV

15. a. Differentiate between *throw* and *throws* keywords used in exception handling through proper code fragments. (4)

    b. Define Daemon threads. Give an example. How can you change a thread to Daemon? (2)

OR

16. Explain the life cycle of a thread with a suitable diagram.

MODULE – V

17. Explain with a program how data can be read from and written/append to a Random Access File.

OR

18. a) Write a Java program to copy characters from one file to another? (4)

    b) Explain the merits of using BufferedReader over FileReader in reading characters from a file. (2)

MODULE – VI

19. Write a Java program to send two numbers from clientclass calculate the sum at the server and send it back to the client.

OR

20. a) Differentiate between applets and application. (2)

    b) Write an applet to find and display the sum of two numbers such that the numbers are passed from the webpage as parameters to the applet. (4)

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