Reg. No. :

Question Paper Code: 44203

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

Fourth Semester

Computer Science and Engineering

14UCS403 - JAVA PROGRAMMING

(Common to Information Technology)

(Regulation 2014)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Characteristic of an object includes

    (a) State   (b) Identity   (c) Behavior   (d) All the above

2. What is byte code in the context of Java?

    (a) The type of code generated by a Java compiler
    (b) The type of code generated by a Java Virtual Machine
    (c) It is another name for Java source file
    (d) It is the code written within the instance methods of a class

3. Super class can be inherited to for

    (a) Specialized classes   (b) Inner classes
    (c) Object classes   (d) General classes

4. Java does not support _____ inheritance

    (a) Multiple   (b) Multilevel   (c) Hierarchy   (d) Simple

5. All exception types are subclasses of the built in class called

    (a) Exception   (b) Throwable   (c) Package   (d) Utility classes

6. Which function of pre-defined class Thread is used to check weather current thread being checked is still running?

    (a) is Alive ( )   (b) Join ( )   (c) is Running ( )   (d) Alive ( )

7. Which class provides many methods for graphics programming?

    (a) java.awt   (b) java.Graphics
    (c) java.awt.Graphics   (d) none of these

8. Which is the container that doesn't contain title bar and MenuBars. It can have other components like button, textfieldetc?

    (a) Window   (b) Frame   (c) Panel   (d) Container

9. Which type of driver converts JDBC calls into the network protocol used by the database management system directly?

    (a) Type 1 driver   (b) Type 2 driver
    (c) Type 3 driver   (d) Type 4 driver

10. ObjectInputStream does not have the method like

    (a) void close ()   (b) byte read Byte ()
    (c) int read ()   (d) void flush ()

PART - B (5 x 2 = 10 Marks)

11. Enumerate two situations in which static methods are used.

12. What is an abstract class?

13. Can we have the try block without catch block?

14. Code a graphics method in java to draw the String "Hello World" from the coordinates (100, 200).

15. Infer the usage of Buffered Reader and Buffered Writer.

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16. (a) (i) What is a constructor? What is the use of new method? (4)

(ii) How objects are constructed? Explain constructor overloading with an example. (12)

Or

(b) Write a program to perform the following functions using classes, objects, constructors and destructors where essential.

(i) Get as input the marks of 5 students in 5 subjects

(ii) Calculate the total and average

(iii) Print the formatted result on the screen. (16)

17. (a) With suitable examples explain how packages can be created, imported and used. Also elaborate on its scope. (16)

Or

(b) Define an interface "IntOperations" with methods to check whether an integer is positive, negative, even, odd, prime and operations like factorial and sum of digits. Define a class MyNumber having one private int data member. Write a default constructor to initialize it to 0 and another constructor to initialize it to a value (Use this). Implement the above interface. Create an object in main. Use constructors to pass a value to the object. (16)

18. (a) With illustrations explain multithreading, interrupting threads, thread states and thread properties. (16)

Or

(b) How are exceptions handled in Java? Elaborate with suitable examples. (16)

19. (a) Write a program to simulate the layout and working of a calculator. (16)

Or

(b) Write a number guessing game (as shown in the Figure). The program shall generate a random number between 1 to 100. It shall mask out the random number generated and output "Yot Got it", "Try Higher" or "Try Lower" depending on the user's input. (16)

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20. (a) Discuss Java database connectivity. Explain JDBC connectivity with suitable examples. (16)

Or

(b) Write a java program from an banking application using JDBC (Consider 5 customers, create account number and types, set some minimum balance, do credit and operation and print out the consolidated report for month wise transaction). (16)

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