Reg. No. :

Question Paper Code: 44203

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

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. The return data type of the function indexof () is

    (a) Boolean   (b) String   (c) Integer   (d) Char

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. Which of these can be used to fully abstract a class from its implementation?

    (a) Objects   (b) Packages   (c) Interfaces   (d) None of these

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. The following one is wrong with the concept of thread

      (a) Defines a separate path of execution

      (b) Smallest unit of dispatchable code

      (c) Require their own separate address space

      (d) Inexpensive and low cost for context switching

7. Event class is defined in which of these libraries

      (a) java.io   (b) java.lang   (c) java.net   (d) java.util

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 of these is a method of ObjectOutput interface used to finalize the output state so that any buffers are cleared?

      (a) clear()   (b) flush()   (c) fflush()   (d) close()

10. Which of these processes occur automatically by java run time system?

      (a) Serialization   (b) Garbage collection

      (c) File Filtering   (d) All of the above

PART - B (5 x 2 = 10 Marks)

11. Explain the different type of access specifiers.

12. Differentiate between class and object.

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

14. What is AWT?

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

PART - C (5 x 16 = 80 Marks)

16. (a) (i) State the use of constructor and finalize( ) method in java using a programming example. Show how garbage collection is achieved here.   (8)

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(ii) Why do we need static members and how to access them? Explain it with clear example. (8)

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) What is dynamic binding? Show with an example how dynamic binding works. (16)

Or

(b) Define Package. With suitable examples, explain how packages can be created, imported and used. (16)

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

Or

(b) Explain thread synchronization with examples. (16)

19. (a) Write a program to create a frame with the following menus, such that the corresponding geometric object is created when a menu is clicked.

   (i) Circle

   (ii) Rectangle

   (iii) Line (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) What is serialization? With an example explain which methods are used during Serialization and DeSerialization process in Java? (16)

Or

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

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