Seat No:

2603E1332   Candidate's Seat No :_____

B.Sc. Semester-5 Examination
CC 303
Computer Science

Time : 2-30 Hours]   March-2024   [Max. Marks : 70

Q1(A)   How does the Java Virtual Machine (JVM) contribute to platform independence in Java programming, and why is it important for cross-platform compatibility?   (7M)

Q1(B)   What is the purpose of the Java Development Kit (JDK), and what components does it typically include?   (7M)

OR

Q1(A)   Explain the historical context and key events that led to the development of the Java programming language. Discuss the role of Sun Microsystems and the objectives behind creating Java.   (7M)

Q1(B)   Difference Between JDK and JRE.   (7M)

Q2(A)   Explain this keyword and super keyword used in java . it is used or not in java ?   (7M)

Q2(B)   What are the primitive data types in Java, and how do they differ from reference data types?   (7M)

OR

Q2(A)   List out types of operators in java? Explain Ternary operator and Arithmetic Operator with example.   (7M)

Q2(B)   How many conditional Statements in java ? Explain any three in brief.   (7M)

Q3(A)   What is polymorphism in Java, and how does it contribute to the concept of method overriding?   (7M)

Q3(B)   Explain Abstract class.   (7M)

OR

Q3(A)   What is the difference between class inheritance and interface inheritance in Java.   (7M)

Q3(B)   Explain Thread Life cycle in java.   (7M)

Q4(A)   Difference between Checked or Unchecked Exception.   (7M)

Q4(B)   What is the main purpose of an abstract class in Java, and how does it differ from a regular class?   (7M)

OR

Q4(A)   What is Exception? Explain types of Exception.   (7M)

Q4(B)   Explain Throw and Throws with example.   (7M)

Q5   **MCQ Attempt any seven out of twelve.(2 Marks each)**   (14M)

1)   What is the main purpose of Java?
   a) Web development   b) Game development
   c) Mobile app development   d) Platform-independent programming

P.T.O

2) Which keyword is used to define a constant in Java?
a) var b) final c) const d) static

3) In Java, which keyword is used to create a subclass?
a) super b) extends c) this d) subclass

4) Which method of the Class.class is used to determine the name of a class represented by the class object as a String?

a)getClass() b)intern() c)getName() d)toString()

5) Which of the following is not a valid data type in Java?
a) int b) float c) decimal d) char

6) Which of the following is a marker interface in Java?
a) Serializable b) Cloneable c) Comparable d) Runnable

7) Which of the following tool is used to generate API documentation in HTML format from doc comments in source code?

a)javap tool b)javaw command c)Javadoc tool d)javah command

8) Which of the following is not a Java features?
a)Dynamicb)Architecture Neutralc)Use of pointers d)Object-oriented

9) What is the default value of a boolean variable in Java?
a) false b) true c) 0 d) null

10) Evaluate the following Java expression, if x=3, y=5, and z=10:
++z + y - y + z + x++

a)24 b)23 c)20 d)25

11) What is the purpose of the 'break' statement in Java?
a) To end a loop or switch statement prematurely.
b) To start a loop.
c) To continue to the next iteration of a loop.
d) To print debugging information.

12) Which class in Java is the superclass of all classes?
a) Object b) Class c) Superclass d) Main