Assignment 1: Object-Oriented Concept

1. What is Object-Oriented concept. (In 200 words).

2. Define object in the context of Object-Oriented concept using real-world example and explain its characteristics. Explain your answer with suitable diagrams.(In 300 words).

3. What is a class. Explain with a real-world example. (In 200 words).

4. What is inheritance. Explain your answer with suitable diagrams. (In 150 words).

5. Why do we use inheritance in Java. Describe your answer with a suitable example. Explain your answer with suitable diagrams. (200 words).

6. What is IS-A concept in terms of inheritance. Give a suitable example. Explain your answer with suitable diagrams. (In 150 words).

7. Explain different terms used in inheritance. (In 300 words).

8. Explain different types of inheritance supported in Java with suitable real-world examples. Explain your answer with suitable diagrams. (In 250 words).

9. Why multiple inheritance is not supported in Java? Explain your answer with a suitable example. (In 200 words).

10. What is polymorphism in object-oriented concept. Describe your answer using a real-world example. Write the advantage of polymorphism. (In 400 words).

11. What do mean by data abstraction in object-oriented programming. Explain your answer with a real-world example. Write the advantage of data abstraction.(In 200 words).

12. Describe encapsulation in the context of object-oriented concept. What are the advantages of using encapsulation? (In 200 words).

13. Write the difference between data-abstraction and encapsulation. (In 300 words).

14. Give a real-world example where polymorphism, encapsulation and inheritance are used. Explain your answer with suitable diagrams. (In 200 words).

Assignment 2: Java Features

1. What are the Buzzwords in Java. Explain each buzzword with a suitable example. (In 2000 words).

2. What is Java bytecode. Why it platform independent? (In 200 words).

3. Write the difference between bytecode and machine code. (In 200 words).

4. Explain Java virtual machine (JVM). (In 150 words).

5. Explain Java runtime environment (JRE). (In 150 words).

6. Explain Java Development toolkit (JDK). (In 150 words).

7. Explain the working function of JVM, JRE and JDK with a suitable example. (In 300 words).

8. Explain the advantages of using the package in Java. Explain your answer with a suitable example. (In 150 words).

Deadline for the submission of Assignment1 is 4ᵗʰ January 2023.

Deadline for the submission of Assignment2 is 12ᵗʰ January 2023.

Saturday 17ᵗʰ December, 2022