FACULTY OF ENGINEERING, UNIVERSITY OF LUCKNOW

Mid-Term Test - I

B.Tech., SEMESTER – 4th, 2023-24

Branch: CSE (Section 1 & 2)

Student's Roll No.....

Subject Code: CS-403 **Subject Title: Object Oriented ~~System~~ Prog.**

Time: 1 Hrs. **Full**

Marks: 20 Note: Attempt questions from each section as per instructions. The symbols have their usual meaning.

SECTION A

1. ***Attempt all parts of this question. Each part carries 1 mark.*** **(1x5=5)**

a) Define class.
b) What is the difference between object and class?
c) Why super keyword is used?
d) Define constructor?
e) Mention various attributes of Object-oriented programming.

SECTION B

Attempt any THREE questions of the following. Each question carries 5 marks. **(5x3=15)**

2. What do you mean by polymorphism? Explain the differences between runtime polymorphism and compile time polymorphism with suitable java code.
3. Explain different types of inheritance in detail.
4. Explain the difference between abstract class and interface with suitable example and java code.
5. Explain the role of this keyword in detail with suitable java code.

FACULTY OF ENGINEERING, UNIVERSITY OF LUCKNOW

Mid-Term Test - II

B.Tech., SEMESTER - IV, 2023-24

Branch: CSE

Student's Roll No.....

Subject Code: CS-403 **Subject: Object oriented programming**

Time: 1 Hrs. **Full Marks: 20**

Note: Attempt questions from each section as per instructions. The symbols have their usual meaning.

SECTION A

1. ***Attempt all parts of this question. Each part carries 1 mark.*** **(1x5=5)**

a) Define super keyword.

b) Mention different built-in Packages used in java programming.

c) What is the difference between encapsulation and abstraction?

d) Mention the names of each access modifier used in java programming.

e) Draw the state diagram of thread.

SECTION B

Attempt any THREE questions of the following. Each question carries 5 marks.

(5x3=15)

2. How super keyword is different from this keyword? Explain the role of super keyword with the help of suitable java code.

3. Explain about packages in detail with suitable java programming code.

4. Explain each access modifier used in java programming with suitable java code.

5. What do you mean by encapsulation? Write a java program to implement encapsulation.

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B.Tech. (CSE) IVth Semester Examination, 2024

OBJECT ORIENTED PROGRAMMING

Paper : CS–403

Time : 3 Hours] [*M.M. : 70*

Note :– Answer any *five* questions. All questions carry equal marks.

1. What do you mean by Object Oriented Programming ? How is it different from structured programming language ? Also explain various attributes of object oriented programming. [14]

2. Explain the differences between abstract class and interface with suitable example and java code. Also explain how multiple inheritance is possible using interface. [14]

3. What do you mean by Inheritance ? Explain various types of inheritance used in java programming. [14]

4. Explain the role of polymorphism in Java programming. Differentiate between run time polymorphism and compile time polymorphism with suitable java code. [14]

5. Discuss the role of the following keywords used in java programming : [14]

   (i) this

   (ii) static

6. (a) What do you mean by Java Swing ? Explain the role of text fields, Buttons, Checkboxes and Radio buttons used in Java Swing.

   (b) What is Multithreading ? What are the different ways to achieve multithreading in java programming ? [7,7]

7. (a) Explain the role of JAR files. Also state the steps to create a JAR file.

   (b) Explain the role of public, protected, default and private access modifiers in java programming with suitable java code. [7,7]

8. (a) What do you mean by EJB ? Explain the role of EJB in Java Programming in detail.

   (b) What are the advantages of packages in Java Programming ? Also explain the steps to create a user- defined packages. [7,7]

9. (a) What do you mean by an Exception ? How exceptions are handled in Java Programming ?

   (b) What is Servlet ? Explain the life cycle of a servlet with suitable diagram. [7,7]

10. Explain the following :

    (i) JSP

    (ii) Constructor [14]