**GURUNANAK INSTITUTE OF TECHNOLOGY**

**B.TECH, ODD Semester, Academic Year: 2021-2022**

**Paper Name: Object Oriented Programming using JAVA**

**Paper Code: CS(IT)504A**

**B.TECH, CSE-1, 5TH SEMESTER**

**UNIT TEST-II**

**Time: 1.5 Hours**  **Full Marks: 35**

**GROUP-A**

**Answer all questions 5 X 1= 5**

1. i)Which of this access specifies can be used for a class so that its members can be accessed by a different class in the same package?  
a) public b) protected c) No Modifier d) All of the mentioned

ii) Which of these can be used to fully abstract a class from its implementation?  
a) Objects b) Packages c) Interfaces d) None of the Mentioned.

iii) When final keyword has been used before method name -  
a) method becomes abstract b) method can’t be overloaded c) method can’t be overrided d) None of these.

iv) Java can’t support multiple inheritances due to  
a) diamond problem b) deadlock c) starvation d) encapsulation

v) What is the process of defining a method in terms of itself that is a method that calls itself?  
 a) Polymorphism b) Abstraction c) Encapsulation d) Recursion

GROUP-B

**Answer any six**

2) What do you mean by the term ‘Interface'? What is the difference between Class , Abstract class and interface? 1 + 4 = 5

3) Describe the comparative study between public, private, default and protected access modifier in java. 5

4) What is package ? Create two separate classes named A and B inside package P. Describe show() inside class A and print() inside class B. 1 + 4 = 5

5) Explain the difference between Nested and inner class with the help of a small java code.

5

6) What is the difference between mutable and immutable string in Java ? Explain with an example.

5

7) Write a single java Program where you have to create a string object and assign a string value “Guru Nanak Institute of Technology” and try to find out two characters of the string at position 4 and 8.

5

8) What is diamond problem (Sometimes called deadly diamond problem) in Java? How can you solve the problem?

4+1=5

9) Short notes (Any one)

5 X 1 = 5

a) final keyword

b) super()

**Questions vs CO Mapping**

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| --- | --- | --- |
| **Question No.** | **CO No.** | **Marks allotted in the corresponding Question** |
| **1(a)** | **CO3** | **1** |
| **1(b)** | **CO4** | **1** |
| **1(c)** | **CO3** | **1** |
| **1(d)** | **CO3** | **1** |
| **1(e)** | **CO3** | **1** |
| **2** | **CO4** | **5** |
| **3** | **CO4** | **5** |
| **4** | **CO4** | **5** |
| **5** | **CO3** | **5** |
| **6** | **CO3** | **5** |
| **7** | **CO3** | **5** |
| **8** | **CO4** | **5** |
| **9(a)** | **CO2** | **5** |
| **9(b)** | **CO2** | **5** |