TED (21) 4343
(Revision-2021)

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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, APRIL – 2025

OBJECT ORIENTED PROGRAMMING CONCEPTS USING JAVA

[Maximum marks: 75] [Time: 3 Hours]

PART A

I. Answer all the following questions in one word or one sentence. Each question carries 1 mark

(9 x 1 = 9 Marks)

		Module outcome	Cognitive level
1	State true or false: A class is a prototype from which objects are created.	M1.01	R
2	JVM stands for…….	M1.04	R
3	What is the index of the first element in an array in Java?	M2.01	R

4	Write the value of variable ***min*** after executing the following code.
	int a = 10, b = 20;
	int min = (a < b) ? a : b;
		M2.02	U

5	A constructor in Java has the same name as…..	M2.05	R
6	Which statement is used to exit from a loop?	M2.07	R
7	State whether the following statement is True or False: An abstract class in Java must be extended by subclasses to be useful.	M3.06	R
8	Which keyword is used to include a packages in a Java program?	M4.01	R
9	Which method is Invoked when applet is first loaded.	M4.03	R

PART B

II. Answer any eight questions from the following. Each question carries 3 marks.

(8 x 3 = 24 Marks)

		Module outcome	Cognitive level
1	Write short note on dynamic binding.	M1.01	U
2	What is meant by bytecode.	M1.02	R
3	Write the steps to build a java application.	M1.05	R
4	Write the primitive data types in java.	M2.01	R
5	Write short note on Relational operators in java.	M2.02	R

6	Write a simple java program that reads and display a person's *full name* and *age* through the console.	M2.06	A
7	Write the selection statements in java.	M2.07	R
8	Explain superclass with an example.	M3.01	U
9	Write short note on interfaces.	M3.07	U
10	Explain the package naming convention in java with an example.	M4.01	U

PART C

Answer all questions. Each question carries seven marks

(6 x 7 = 42 Marks)

		Module outcome	Cognitive level
III	Explain the concept of class and object with an example.	M1.01	U
	OR		
IV	Explain Features of Java.	M1.02	R
V	Explain Constructor overloading with example.	M2.05	U
	OR		
VI	Explain the loop control structures in java with example.	M2.07	U
VII	Develop a Java program to create a class called *Programmer* with *instance variables name* and *experienceYears.* Create a subclass called Project that adds an instance variable *technologyUsed.* Use a method *displayDetails()* to display the programmer's name, years of experience, and the technology used in the project.	M3.02	A
	OR		
VIII	Write short note on final variables, final methods and final class.	M3.06	U
IX	Explain single and multilevel inheritance with example.	M3.01	U
	OR		
X	Develop a Java program to create an interface called *item* with a method *getAmount().* Create a class called *Purchase* that implements the *Item* interface and includes instance variables for the quantity of the item purchased and its unit price. Override the *getAmount()* method to calculate and return the total purchase amount.	M3.07	A
XI	Explain the Applet life cycle.	M4.03	U
	OR		

XII	Describe Exception handling in java.	M4.02	U
XIII	Explain how to create a package.	M4.01	U
	OR		
XIV	Design a simple GUI application using Java Applets that includes a button. When the button is clicked, a message "Button Clicked!" is displayed on the applet.	M4.04	A

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