



R20 Regulation

Subject code:307GB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Supplementary Examinations, November 2025

OBJECT ORIENTED PROGRAMMING THROUGH JAVA (CSE(AIML))

Maximum Marks: 70

Date: 26.11.2025

Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	What is an abstract class?	2M	1	L1
2	What is the difference between print() and println() methods in Java.	2M	1	L1
3	How to create and access a package?	2M	2	L1
4	Define auto-boxing.	2M	2	L1
5	What is an uncaught exception?	2M	3	L1
6	What are the two ways of creating a thread?	2M	3	L1
7	What is the use of the Iterator interface?	2M	4	L1
8	What is a legacy class?	2M	4	L1
9	What is a container in AWT?	2M	5	L1
10	List any two sources of Events.	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	a) What is object-oriented programming? Explain.	5M	1	L2
	b) Explain different types of inheritance supported by java with examples?	5M		
OR				
12	a) List and explain different forms of inheritance.	5M	1	L2
	b) Compare the Interface and abstract class.	5M		
13	a) Differentiate class and interface.	5M	2	L2
	b) How interfaces can be used to achieve multiple inheritance?	5M		
OR				
14	a) Compare and contrast abstract class and interface.	5M	2	L2
	b) What is serialization? Explain its significance in Java.	5M		
15	a) Differentiate between uncaught and caught exceptions	5M	3	L2
	b) Give a scenario in which the users need to create their own exception. Write a Java program to create user-defined exceptions for the above scenario.	5M		
OR				

16	a) Write a Java program that creates and starts a thread using the Runnable interface. The thread should print a message indicating it is running and then terminate. b) Explain Thread synchronization with an Example?	5M 5M	3	L2
17	a) What is Java Collections Framework? List out some of the benefits of the Collections framework. b) Classify the ArrayList and LinkedList for various operations (such as insertion, deletion, and access).	5M 5M	4	L2
OR				
18	a) What is an Iterator? Explain the purpose of it. b) List and explain any two Collection classes	5M 5M	4	L2
19	a) Build the MVC architecture and Write its advantages? b) Compare and contrast Component and Container classes	5M 5M	5	L2
OR				
20	Write a Java program using AWT to create a simple graphical user interface (GUI) with a window containing a button labeled "Click Me". When the button is clicked, a message dialog should display the text "Button Clicked".	10M	5	L2