

Code No: P21ADT01

HALL TICKET NUMBER

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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)
II B.TECH I SEMESTER END REGULAR EXAMINATIONS, JAN - 2023
JAVA PROGRAMMING
(Common to AIDS,AIML Branches)

Time: 3 hours

Max. Marks: 70

Answer all the questions from each UNIT (5X14=70M)

Q.No.	Questions	Marks	CO	KL
UNIT-I				
1.	a) Demonstrate Command Line Arguments using a simple Java Program.	[7M]	1	3
	b) Describe the different types of looping statements available in Java and provide an example of when you would use each one.	[7M]	1	3
OR				
2.	a) How does the ternary operator (?:) work in Java? Give sample code to demonstrate switch case statement in Java.	[7M]	1	3
	b) Demonstrate the bitwise operators in Java with a sample program.	[7M]	1	3
UNIT-II				
3.	a) Explain the concept of final classes and methods in Java and provide an example of how they are used?	[7M]	2	3
	b) How to protect the members of a class using access modifiers? Illustrate with sample Java Program.	[7M]	2	3
OR				
4.	a) Illustrate the use of Nested Class with sample Java Program	[7M]	2	3
	b) What is a Constructor? Can we overload a Constructor? Illustrate with sample code.	[7M]	2	3
UNIT-III				
5.	a) Explain the concept of inheritance in Java, including the types of inheritance with sample java code.	[7M]	3	3
	b) Discuss the use of abstract classes and methods in Java, including the differences between abstract classes and interfaces.	[7M]	3	3
OR				
6.	a) Describe the concept of interfaces in Java, including how they are declared, implemented, and inherited.	[7M]	3	3
	b) Explain the concept of functional interfaces in Java, including examples of how they can be used and their benefits over traditional interfaces.	[7M]	3	3
UNIT-IV				
7.	a) Explain the concept of packages in Java and the different ways in which packages and classes can be imported into a program.	[7M]	4	3
	b) Explain the concept of checked and unchecked exceptions in Java and the differences between them.	[7M]	4	3
OR				
8.	a) Explain the concept of exception handling in Java and the hierarchy of standard exception classes.	[7M]	4	3
	b) Explain the difference between auto-boxing and auto-unboxing in Java and provide an example of each.	[7M]	4	3



UNIT-V					
9.	a)	Describe the difference between StringBuffer and StringBuilder classes in Java and their use cases.	[7M]	5	3
	b)	Write a Java program to print the sum of even numbers and odd numbers present in an integer array using two simultaneous Threads.	[7M]	5	3
OR					
10.	a)	Describe the different states of a thread in Java and the methods used to control the state of a thread.	[7M]	5	3
	b)	Describe the basics of Java Database Connectivity (JDBC) and the steps involved in connecting to a database using JDBC.	[7M]	5	3
