

G. S. Mandal's

**Maharashtra Institute of Technology, Aurangabad**

(An Autonomous Institute)

END SEMESTER EXAMINATION

**Second Year B.Tech (ECE) – Feb/Mar-2023**

Course Code : ECE204

Course Name : Programming in JAVA

Duration : 2 Hrs

Max. Marks : 50

Date :

Instructions :

10 FEB 2023

- i) All questions are compulsory  
 ii) Assume suitable data wherever necessary and clearly state it  
 iii) Figures to right indicate full marks

Q. 1	Answer any five (Marks:10)	Marks	CO	BL
a)	What is the need of Object oriented Programming?	2	1	1
b)	What is an Operator? Explain with an example.	2	2	1
c)	Define Classes and object?	2	2	2
d)	Define Inheritance with its Syntax? State its types?	2	3	2
e)	Why to use an Interface in JAVA?	2	3	1
f)	What is Exception and Exception handling in JAVA?.	2	4	1
g)	Write Life cycle of a Thread (Thread States)?	2	5	2
Q.2	a) Differentiate Constructor and Methods. b) Define Access Modifiers. Discuss Access Modifiers in JAVA.	4	2	3
		4	2	3
Q.3	Explain <i>IS-A</i> relationship in inheritance with example. Write a program to implement single level inheritance assuming suitable data.	8	3	3
Q.4	Write a Java Program to Count Vowels in A String.	8	6	3
Q.5	Explain the following terms with respect to exception handling with program: i. try ii. catch iii. throw iv. finally	8	4	3
Q.5.	<b>OR</b>	8	4	3
	Define Multithreading. Write a program that creates three tasks and three threads to run them. ■ The first task prints the letter "a" 100 times. ■ The second task prints the letter "b" 100 times. ■ The third task prints the integers 1 through 100			

Q.6	Explain interface ? Elaborate implementation of Interface using one example ?	8	3	3
	<b>OR</b>			
Q6.	Write a Program to Reverse A Number In Java using a While loop and using a Static method.	8	1	3