



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination
October 2022

Course Name: Java Programming
Class: F.Y.MCA
Branch: MCA

Course Code: MC506
Max. Marks: 20
Semester: II

Instruction:

- (1) All questions are compulsory
- (2) Draw neat diagrams
- (3) Assume suitable data if necessary
- (4) Mention the question number clearly while writing the answer

QNo	Question	Marks	CO-BL-PI
1)	You are given an interface AdvancedArithmetic which contains a method signature <code>int divisor_sum(int n)</code> . You need to write a class called MyCalculator which implements the interface. <code>divisorSum</code> function just takes an integer as input and returns the sum of all its divisors. For example divisors of 6 are 1, 2, 3 and 6, so <code>divisor_sum</code> should return 12.	5	CO1-BL3
2)	a. Describe the flow to execute a statement against a database using JDBC. Which is the most efficient JDBC driver, Justify your answer. OR b. Describe how does the servlet request flows.	5	CO2-BL-2
3)	Illustrate the life cycle of a thread, how the execution of two threads will be carried out if two threads have the same priority?	5	CO2-BL2

4)	<p>a. Guess the output of the following java program. Provide appropriate reasoning for your answer.</p> <pre> public class MultiCatch { public static void main(String[] args){ try { var a = args.length; System.out.println("a=" + a); int b = 21 / a; int c[] = {21}; c[50] = b; System.out.println("The result is :"+ b); } catch(Exception e){ System.out.println("Exception:"+e); } catch(ArithmeticException e){ System.out.println("Divide by 0:"+e); } catch(ArrayIndexOutOfBoundsException e){ System.out.println("Array index out of bound"+e); } } } </pre> <p>b. Interpret the working of try catch statements in nested try statements.</p>	3	CO2-BL3
		2	