

GUJARAT TECHNOLOGICAL UNIVERSITY**BVOC - SEMESTER-II EXAMINATION – WINTER 2021****Subject Code: 1120203****Date: 10/01/2022****Subject Name: OOPs with JAVA****Time: 02:30 PM TO 04:30 PM****Total Marks: 50****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Explain features of JAVA.	05
	(b) Write a JAVA program to do sum of command line argument passed two Double numbers.	05
Q.2	(a) What is constructor? How it is different from methods?	05
	(b) It is required to compute SPI (semester performance index) of n students of a class for their registered subjects in a semester. Assume that all students register for 6 subjects and each subject carry 5 credits. Also, follow GTU convention and method for computation of SPI. Declare a class called student having following data members: id_no, grades_obtained and spi. Define constructor, display and calculate_spi methods. Define main to process data of n students	05
OR		
	(b) Demonstrate method overriding in JAVA with the help of example.	05
Q.3	(a) Differentiate between interface and abstract class.	05
	(b) Write a JAVA program to define abstract class, with two methods addition() and subtraction(). addition() is abstract method. Implement the abstract method and call that method using a program(s).	05
OR		
Q.3	(a) Explain JAVA API Packages in detail.	05
	(b) What is wrapper class? Explain boxing and unboxing in detail.	05
Q.4	(a) Write a program that generates custom exception for divide by zero situations.	05
	(b) What are the steps for creating a new thread of execution?	05
OR		
Q.4	(a) Draw and explain life cycle of thread.	05
	(b) Give the difference between checked and unchecked exceptions.	05
Q.5	(a) Draw and explain life cycle of applet.	05
	(b) Describe the various sections of web page.	05
OR		
Q.5	(a) Explain local applet and remote applet with example.	05
	(b) Can we declare main () in applet application? Justify your answer	05
