



		Reg. No.:	
		Name :	
<div style="text-align: center;">   www.vitbhopal.ac.in </div>			
Term End Examinations (TEE), March 2022			
Programme	B. Tech. – CSE	Semester	Winter 21-22-Block-1
Course Name	Programming in Java	Course Code	CSE3002
Faculty Name	Prof. Anand Motwani	Slot / Class No	A11+A12+A13+D11+D12+D13 / 0041
Time	1½ hours	Max. Marks	50
Answer ALL the Questions			
Q. No.	Question Description		Marks
PART - A – (3 x 10 = 30 Marks)			
1	(a)	<p>Write the code outline for the following Classes and Associations. Use appropriate data structures to hold class objects.</p> <div style="text-align: center;"> <pre> classDiagram class University class Department class Professor class Person University "1" *-- "1" Department Department "1" *-- "1" Professor Professor "1" -- > "1" Person </pre> </div>	10
OR			
	(b)	Explain the concept of accessibility from Nested class with the help of short program.	10
2	(a)	If the LinkedList are so much better than Arrays, why are arrays used at all. Compare on the basis of: a. access; b. searching and retrieval of elements; c. space. Also, write syntax for creating each of them.	10
OR			
	(b)	Assuming the input strings are given to the program as command line arguments.	10

		Perform the following operations using suitable methods. <ul style="list-style-type: none"> - Save the arguments as List (collection). - Print the list elements using Iterator. - Filter the strings having length > 3. - Collect the strings with length > 3 into new_list and print new_list. 	
3	(a)	Under what circumstances do we need to write our own exception classes. Demonstrate the usage of: <i>try, catch, throw, throws, finally</i> in a single program.	10
		OR	
	(b)	Define Runnable and Callable. Show how, Runnable differs from Thread ?	10
Part - B – (2 x 10 = 20 Marks)			
4		Write the syntax for the following: <ol style="list-style-type: none"> Creating stream of objects (3 ways). Sorting the stream. Lambda expression. Applying <i>map()</i> to stream. Applying <i>filter()</i> to stream. 	10
5		Demonstrate the following operations, in a single program, using methods from <code>nio.file</code> package : <ul style="list-style-type: none"> - Creating a file (“Smart”) at a specified path. - Writing the contents to the file. - Reading the contents of entire file. - Copying the created file to another path. Also, apply the proper exception handling.	10
↔↔↔↔			