



GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Bachelor of Vocation (D.Voc), 6th Semester

Branch: Software Development

Subject Name: Java Lab.

Subject Code: 1260206

**With effective
from academic
year 2019-20**

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			C	ESE (E)	PA (M)	ESE (V)	PA (I)	
-	-	2	2	0	-	20	30	50

Programming problems based on all concepts covered in theory such as Arrays, Classes, Threads, Methods, and Applets etc.

Sr. No.	Practical / Hands on Exercise	Hrs
1	Install JDK, write a simple “Hello World” or similar java program, compilation, debugging, executing using java compiler and interpreter.	4
2	a. Write a program in Java to find that given number or string is palindrome or not. b. Write an interactive program to print a string entered in a pyramid form.	2
3	Create a class which ask the user to enter a sentence, and it should display count of each vowel type in the sentence. The program should continue till user enters a word “quit”. Display the total count of each vowel for all sentences.	2
4	a. Write programs in Java to use Wrapper class of each primitive data types b. Write a program in Java to develop overloaded constructor.	4
5	Create a class to find out whether the given year is leap year or not. (Use inheritance for this program)	2
6	Write a program in Java to develop user defined exception for 'Divide by Zero' error.	2
7	Write a program in Java to demonstrate use of this keyword. Check whether this can access the private members of the class or not.	2
8	Describe abstract class called Shape which has three subclasses say Triangle, Rectangle, Circle. Define one method area() in the abstract class and override this area() in these three subclasses to calculate for specific object i.e. area() of Triangle subclass should calculate area of triangle etc. Same for Rectangle and Circle	2
9	a. Write a program that executes two threads. One thread displays “Thread1” every 2,000 milliseconds, and the other displays “Thread2” every 4,000 milliseconds. Create the threads by extending the Thread class. b. Write a program in Java to demonstrate multiple try block and multiple catch exception.	4
10	a. Write a program to create “Hello Students” Applet. b. Create Number counter in an Applet using Thread Example.	4
Total Hours:		42

Suggested Specification table with Marks (Theory):



GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Bachelor of Vocation (D.Voc), 6th Semester

Branch: Software Development

Subject Name: Java Lab.

Subject Code: 1260206

**With effective
from academic
year 2019-20**

Distribution of Theory Marks				
R Level	U Level	A Level	N Level	E Level
5	25	25	10	5

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate and above Levels (Bloom's Taxonomy)

Reference Books:

1. Java Fundamentals A comprehensive introduction By Herbert Schildt, Dale Skrien, McGraw Hill Education.
2. Programming with Java A Primer – E.Balagurusamy, Mc Grawhill
3. Object Oriented Systems with Java, Tanweer Alam, Khanna Publishing House
4. Core Java, Tanweer Alam Practical Approach), G. S. Baluja, Dh