



K. S. INSTITUTE OF TECHNOLOGY

An Autonomous Institution under VTU, Approved by AICTE
Department of Master of Computer Applications
SECOND SEMESTER SYLLABUS

Course : Object Oriented Programming using JAVA Laboratory	Semester	II	
Course Code	25MML206	CIE Marks	50
Teaching Hours/Week (L:P:T)	0:2:2	SEE Marks	50
Total Hours of Pedagogy	42	Total Marks	100
Credits	02	Exam Hours	03
Examination type (SEE)	LAB		

Course Objectives (Course Skill Set)

- Using Java programming to develop programs for solving real-world problems.
- Reinforce the understanding of basic object-oriented programming concepts.

Sl.NO	Experiments
1	Write a Java program to list the factorial of the numbers 1 to 10. To calculate the factorial value, use while loop. (Hint Fact of 4 = 4*3*2*1)
2	Write a Java program <ul style="list-style-type: none">• To find the area and circumference of the circle by accepting the radius from the user.• To accept a number and find whether the number is Prime or not
3	Write a Java program that demonstrates the concept of encapsulation by creating an Employee class with employee data such as name and designation, and retrieve their values using getter and setter methods.
4	Write a Java program to demonstrate Constructor Overloading and Method Overloading
5	Write a JAVA program to demonstrate Multiple inheritance using interfaces to calculate the area of a rectangle and triangle.
6	Write a Java program to demonstrate the use of the ArrayList class with generics by performing addition on an ArrayList of five integers.
7	Write a Java program to demonstrate the use of the linked list class with generics by creating a linked list that stores natural numbers and perform multiplication operation on the elements of the linked list
8	Write a Java program to demonstrate the use of the Stack class with generics by creating a stack that stores five numbers which are multiples of 5, and perform an addition operation on the elements of the stack.
9	Write a Java program to demonstrate a division by zero exception using Try, catch, throw and finally
10	1) Develop a Java program to create package named “tpack” and import and implement it in a suitable class. 2) Write a program to illustrate creation of threads using runnable class.

Course outcome (Course Skill Set)

At the end of the course, the student will be able to:

CO1: Apply conditional looping statements to solve computational decision making problems.

CO2: Develop efficient applications using exception handling and packages.

CO3: Make use of concept of encapsulation and polymorphism to construct Java programs.

CO4: Apply the concept of multithreading to develop Java programs.

CO5: Develop efficient applications using the concept of Inheritance.

CO6: Make use of Linear Data structures to construct Java programs

Assessment Details (both CIE and SEE)

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 50% of the maximum marks. A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each course.

The student has to secure not less than 40% of maximum marks in the semester- end examination(SEE). In total of CIE and SEE student has to secure 50% maximum marks of the course.

Continuous Internal Evaluation (CIE):

CIE marks for the practical course is **50 Marks**.

The split-up of CIE marks for record/ journal and test are in the ratio **60:40**.

Each experiment to be evaluated for conduction with observation sheet and record write- up. Rubrics for the evaluation of the journal/write-up for hardware/software experiments designed by the faculty who is handling the laboratory session and is made known to students at the beginning of the practical session. 10 marks will be allocated for mini project.

Record should contain all the specified experiments in the syllabus and each experiment write-up will be evaluated for 10 marks.

Total marks scored by the students are scaled down to 30 marks (60% of maximum marks).

Weightage to be given for neatness and submission of record/write-up on time. Department shall conduct 02 tests for 50 marks each, In each test, test write-up, conduction of experiment, acceptable result, and procedural knowledge will carry a weightage of 60% and the rest 40% for viva-voce.

The suitable rubrics can be designed to evaluate each student's performance and learning ability. The average of 02 tests is scaled down to **20 marks** (40% of the maximum marks).

The Sum of scaled-down marks scored in the report write-up/journal and average marks of two tests is the total CIE marks scored by the student.

Semester End Evaluation

SEE marks for the practical course is 100 marks scaled down to 50 Marks.

SEE shall be conducted jointly by the two examiners. (One Internal and One External)

All laboratory experiments are to be included for practical examination.

(Rubrics) Breakup of marks and the instructions printed on the cover page of the answer script to be strictly adhered to by the examiners. **OR** based on the course requirement evaluation rubrics shall be decided jointly by examiners.

Students can pick one question (experiment) from the questions lot prepared by the internal /external examiners jointly.

Evaluation of test write-up/ conduction procedure and result/viva will be conducted jointly by examiners. General rubrics suggested for SEE are mentioned here, writeup-20%, Conduction procedure and result in -60%, Viva-voce 20% of maximum marks. SEE for practical shall be evaluated for 100 marks and scored marks shall be scaled down to 50 marks (however, based

on course type, rubrics shall be decided by the examiners)

Change of experiment is allowed only once and 10% Marks allotted to the procedure part to be made zero.

The duration for SEE is 03 hours.