Technology of Textile Lab		Semester	I
Course Code	**1BETXL107/207**	CIE Marks	50
Teaching Hours/Week (L:T:P:S)	0-0-2-0	SEE Marks	50
		Total Marks	100
Credits	01	Exam Hours	03
Examination type (SEE)	**Practical**		

Course outcome (Course Skill Set)

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

1. Identifying of Natural textile fibers
2. Summarize the yarn count
3. Determination of fabric parameters
4. Explore the textile styles of printing
5. Illustrate the fashion accessories

Note:

1. The laboratory syllabus consists of PART-A and PART-B. While PART-A has 6 conventional experiments, PART-B has 6 typical open-ended experiments. The maximum marks for the laboratory course are 100.
2. Both PART-A and PART-B are considered for CIE and SEE.
3. Students have answer 1(one) question from PART-A and 1(one) question from PART-B.
   a. The questions set for SEE shall be from among the experiments under PART-A. It is evaluated for 70 marks out of the maximum 100 marks.
   b. The open-ended question set for SEE shall be any other open-ended question and not selected from the experiments under PART-A. It shall be evaluated for 30 marks.
4. For Continuous Internal Evaluation (CIE) during the semester, classwork shall typically include open-ended questions from **Part-B**, along with other similar questions designed to enhance the students' skills.

PART – A
FIXED SET OF EXPERIMENTS

1. Identification of Textile fibers by Physical method
2. Identification of Textile fibers by Chemical method
3. Identification of Yarn count
4. Determination of basic Fabric parameters
5. Study of Basic weaving Process
6. Identification of different types of fabric structure

PART – B
OPEN ENDED EXPERIMENTS

Open-ended experiments are a type of laboratory activity where the outcome is not predetermined and students are given the freedom to explore, design, and conduct the experiment based on the problem statements as per the concepts defined by the course coordinator. It encourages creativity, critical thinking, and inquiry-based learning.

1. Burning test of Natural fibers
2. Burning test of Manmade fibers
3. Style of printing (Hand Painting) on cotton fabric
4. Tie and Dye on cotton yarn/fabric
5. Draw the basic weaves/Design of fabric
6. Sketching of the different fashion accessories

Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):

Text books:

1. Textile fibers by BITRA
2. Textile Fibers by by James Gordon Cook
3. Identification of Textile Fiber by Max M Houck.

Reference books / Manuals:

1. Fiber to Fabric ,Bernard P Corbman, MC.GRAW-HILL publication
2. Manual of Cotton Spinning Coulson. A.F.W.(Ed.),Vol. I to IV Textile Institute, Manchester,1958
3. Series on Textile processing Zaloski.S ,The Institute of Textile Technology, USA1983
4. Technology of short-staple spinning, Klein. W. Vol .I, II, III and IV, Textile Institute

Web links and Video Lectures (e-Resources):

1. NPTEL course on Textile fibres
2. NPTEL course on Manufactured Fibre Technology

Teaching-Learning Process (Innovative Delivery Methods):

The following are sample strategies that educators may adopt to enhance the effectiveness of the teaching-learning process and facilitate the achievement of course outcomes.

1.
2.

Assessment Structure:

The assessment for each course is equally divided between Continuous Internal Evaluation (CIE) and the Semester End Examination (SEE), with each component carrying **50% weightage** (i.e., 50 marks each).
The CIE Theory component will be 25 marks and CIE Practical component will be 25 marks.

The CIE marks awarded shall be based on the continuous evaluation of the laboratory report using a defined set of rubrics. Each experiment report can be evaluated for 30 marks. The laboratory test (duration 03 hours) at the end of the last week of the semester /after completion of all the experiments (whichever is early) shall be conducted for 50 marks and scaled down to 20 marks. For both CIE and SEE, the student is required to conduct one experiment each from both Part A and Part B.

Rubrics for CIE – Continuous assessment:

	Superior	Good	Fair	Needs Improvement	Unacceptable
Performance Indicator- 1 (CO/PO Mapping)					
Performance Indicator-2 (CO/PO Mapping)					
…					
Performance Indicator-n (CO/PO Mapping)					

Rubrics for SEE / CIE Test:

	Superior	Good	Fair	Needs Improvement	Unacceptable
Performance Indicator- 1 (CO/PO Mapping)					
Performance Indicator-2 (CO/PO Mapping)					
…					
Performance Indicator-n (CO/PO Mapping)					

- To qualify and become eligible to appear for SEE, in the **CIEcomponent**, a student must secure **a minimum of 40% of 50 marks**, i.e., **20 marks**.
- To pass the **SEE component**, a student must secure **a minimum of 35% of 50 marks**, i.e., **18 marks**.
- A student is deemed to have **successfully completed the course** if the **combined total of CIE and SEE is at least 40 out of 100 marks**.

Rubrics suggested for Practical continuous assessment				
Performance Indicators	**Excellent**	**Very Good**	**Good**	**Satisfactory**

Fundamental Knowledge (4) (PO1)	The student has well depth knowledge of the topics related to the course (4)	Student has good knowledge of some of the topics related to course (3)	Student is capable of narrating the answer but not capable to show in depth knowledge(2)	Student has not understood the concepts clearly (1)
Design Of Experiment (5) (PO2 & PO3)	Student is capable of discussing more than one design for his/her problem statement and capable of proving the best suitable design with proper reason (5)	Student is capable of discussing few designs for his/her problem statement but not capable of selecting best(4)	Student is capable of discussing single design with its merits and de-merits(3)	Student is capable of explaining the design (1-2)
Implementation (8) (PO3 & PO8)	Student is capable of implementing the design with best suitable algorithm considering optimal solution. (7-8)	Student is capable of implementing the design with best suitable algorithm and should be capable of explaining it (5-6)	Student is capable of implementing the design with proper explanation.(3-4)	Student is capable of implementing the design. (1-2)
Result &Analysis (5) (PO4)	Student is able to run the program on various cases and compare the result with proper analysis. (5)	Student will be able to run the program for all the cases.(4)	Student will be able to run the code for few cases and analyze the output.(3)	Student will be able to run the program but not able to analyze the output.(1-2)
Demonstration (8) (PO9)	The lab record is well-organized, with clear sections (e.g., Introduction, Method, Results, Conclusion). Transitions between sections are smooth. (7-8)	The lab record is organized, with clear sections, but some sections are not well-defined. (5-6)	The lab record lacks clear organization or structure. Some sections are unclear or incomplete. (3-4)	The lab record is poorly organized, with missing or unclear sections. (1-2)

Note: Can add Engineering & IT tool usage based on the nature of the course