



**B.TECH DEGREE EXAMINATIONS: APRIL / MAY 2023**

(Regulation 2018)

Sixth Semester

**TEXTILE TECHNOLOGY**

U18TXE0016: Industrial Engineering for Textile and Apparel Industry

**COURSE OUTCOMES**

- CO1:** Discuss the relationship between productivity and Apparel Engineering
- CO2:** Explain the various method study techniques
- CO3:** Calculate the standard time by using work measurement techniques.
- CO4:** Describe the Industrial Engineering concepts in apparel.
- CO5:** Explain how Line Balancing procedures carried out in garment industry.

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-  
PART A (10 x 2 = 20 Marks)  
(Answer not more than 40 words)**

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|---|-----------------------|
| 1. Differentiate production and productivity.   | CO1 [K <sub>2</sub> ] |
| 2. What are pre-production activities that a supervisor responsible for?                | CO1 [K <sub>2</sub> ] |
| 3. What is micro-motion study?  | CO2 [K <sub>2</sub> ] |
| 4. List the objectives of method study.   | CO2 [K <sub>3</sub> ] |
| 5. What are techniques used in work measurement?  | CO3 [K <sub>2</sub> ] |
| 6. How can rating factors be used to adjust time standards based on worker performance? | CO3 [K <sub>2</sub> ] |
| 7. What is capacity study?  | CO4 [K <sub>3</sub> ] |
| 8. List challenges associated with managing WIP in a production process.                | CO4 [K <sub>2</sub> ] |
| 9. How can SMT be used to train production workers?                                     | CO5 [K <sub>2</sub> ] |
| 10. What are the benefits of using selection tests in production training?              | CO5 [K <sub>2</sub> ] |

**Answer any FIVE Questions:-  
PART B (5 x 16 = 80 Marks)  
(Answer not more than 400 words)**

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|-----|--|-----------------------|
| 11. | Discuss in detail how the total time of a job made up and various factors affecting the total time of a job.   | CO1 [K <sub>2</sub> ] |
| 12. | Evaluate the concept of methods improvement and discuss how it can be optimized a production process using flow process chart.   | CO2 [K <sub>3</sub> ] |
| 13. | Analyze the principles of motion economy and discuss how they can be applied in the garment industry to improve the efficiency and ergonomics of a production process. | CO2 [K <sub>3</sub> ] |
| 14. | Explain in detail how time study conducted for a full sleeve shirt in a garment.   | CO3 [K <sub>3</sub> ] |
| 15. | Explain with a neat sketch the concept of Progressive bundle system and state its merits and demerits.   | CO4 [K <sub>3</sub> ] |
| 16. | Develop an operation bulletin for basic polo T-shirt.  | CO5 [K <sub>3</sub> ] |

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