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Sub Code: NTT042

Roll No. XXXXXXXXXX

**B TECH**  
**(SEM VIII) THEORY EXAMINATION 2017-18**  
**PROCESS HOUSE PLANNING**

**Time: 3 Hours****Total Marks: 100**

**Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.  
2. Any special paper specific instruction.

**SECTION A**

**1. Attempt all questions in brief. 2 x 10 = 20**

- a) Which textile wet processing waste is useful for recovery of caustic soda and how is it recovered?
- b) What is 'Debt Service Coverage Ratio'?
- c) Why is working capital required?
- d) What types of maintenance is mostly carried out in the textile processing units?
- e) What is the percentage of water used in various textile wet processing and washing operations?
- f) Steam is used in textile processing - why?
- g) What do you understand about risk assessment in textile processing?
- h) What is finished folding?
- i) In fabric singeing process, fire safety measures are essential – justify.
- j) What is ETP?

**SECTION B**

**2. Attempt any three of the following: 10 x 3 = 30**

- a) What are the harmful effects of TSS, COD, Residual Cl<sub>2</sub> and Oil and Grease present in textile effluents?
- b) Write a detailed note on manufacturing expenses of a textile process house.
- c) What are the major elements of safety program of any processing unit? Discuss each element.
- d) Discuss the essential components needed for setting up a new textile mill
- e) Time rate wage system is normally followed in textile mill- justify with reasons.

**SECTION C**

**3. Attempt any one part of the following: 10 x 1 = 10**

- a) Discuss about machines balancing of dyeing of 50,000 meter 100% cotton medium weigh quality (150 gsm) fabric using continuous processing route.
- b) What are the factors to be considered for construction of building for textile mills?

**4. Attempt any one part of the following: 10 x 1 = 10**

- a) Discuss the importance of maintenance in process house and impact of poor maintenance on overall production process.
- b) A unit is processing 20,000 meter piece dyed fabric per day. If the fabric sale rate is Rs 325/- per meter then what will the annual sales realization of the unit? (Use appropriate assumptions)

**5. Attempt any *one* part of the following:** **10 x 1 = 10**

- a) What are the harmful effects of Colour, pH, BOD and Chromium present in textile effluents?
- b) It is preferred to set up textile unit in a textile park- justify.

**6. Attempt any *one* part of the following:** **10 x 1 = 10**

- a) Discuss harmful effects of textile effluents if untreated effluents are discharged into sewers, surface water and agricultural land.
- b) What are the different categories of operatives engaged in textile unit as per skill level? Name the important factors to be considered for manpower engagement in textile unit.

**7. Attempt any *one* part of the following:** **10 x 1 = 10**

- a) What is Capital Expenditure? Describe the essential components of capital expenditure.
- b) Write the detailed note on 'working capital'.