

Printed Pages: 02

Paper Id: 

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Sub Code: NTT042

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**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'.