315393

12526

3 Hours / 70 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

(5) Use of Non-programmable Electronic Pocket Calculator is permissible.

(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following : **10**

a) State the objective of planning lay out for dye house.

b) Write the norms for production of flat bed printing machine.

c) State the water quality norms for textile wet processing.

d) List various types of fuels used in textile wet processing.

e) Define the term –

i) MLR

ii) % Expression

f) State the importance of material handling – (Any two)

g) List the types of probable accidental hazards in process house.

Marks

2. Attempt any THREE of the following : **12**

a) Explain the parameters for selection of location for modern process house.

b) Explain the production norms for calculating production of singeing machine.

c) Calculate the amount of water required for reactive dyeing of 100 Kg cotton fabric on Jigger dyeing machine by considering following parameters.

i) MLR – 1:7

ii) % Shade – 2%

iii) No. of washing cycles – 4

d) Explain the stepwise procedure to calculate steam consumption for drying range with suitable example.

3. Attempt any THREE of the following : **12**

a) Describe production norms of Jet dyeing machine.

b) Calculate water consumption for resin finishing of 10,000 meters of cotton fabric with 70% expression on padding mangle.

c) Calculate cost of steam for printing of 10,000 meters P/C blended fabric. GSM - 150, width – 1.5 meter, Steam consumption = 3 Kg/Kg of fabric. Cost of steam = Rs 1/Kg.

d) Suggest a modification in pretreatment processes for energy conservation.

4. Attempt any THREE of the following : **12**

a) Calculate per shift production of a stentor with Avg. speed of 30 met/min.

b) Calculate water consumption of soft flow dyeing machine for batch size of - 100 kg for Reactive dyeing MLR = 1:6, No. of washing cycles – 3.

c) Write production norms for mercerisation process and produce to calculate per shift production.

Marks

d) Explain advantages and limitation of steam Vs oil as a fuel in textile wet processing.

e) Prepare a stock paste for 10,000 meters fabric printing with coverage of 60%, fabric width = 1.5 meter on rotory printing machine.

5. Attempt any TWO of the following : **12**

a) Compare between single storage Vs multistorage building arrangement for a modern process house on the basis of –

i) Space utilization

ii) Material handling

b) Suggest the process modifications for conservation of water in finishing department (any 3).

c) Describe the method for calculation of chemicals required in pretreatment for batchwise processes. (Desizing, Scouring and Bleaching)

6. Attempt any TWO of the following : **12**

a) Calculate the daily production for sanforising machine with a Avg. Speed of 40 met/min considering 8 hrs shift, efficiency = 80 %, No. of shifts/day = 2.

b) Write the procedure to calculate electricity consumption in finishing for Resin finishing process.

c) Discuss the importance of proper light systems in process house with examples.

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