17688

21819

3 Hours / 100 Marks Seat No. | | | | | | | | |

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

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

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

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

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

Marks

1. Attempt any FIVE of the following: **20**

a) Write objectives of planning and layout of dye house.

b) What are the effects of good layout and bad layout.

c) Enlist the production norms of osthott singeing machine.

d) State and describe various types of fuel used in textile industry.

e) Describe the various position of lighting.

f) Enlist various causes of accident in textile wet processing.

g) Describe various way to increase awareness of safety in textile wet processing.

Marks

2. Attempt any TWO of the following: **16**

a) Write merits and demerits between single storage building and multi storage building.

b) Give the production norms of 150 kg. Jigger machine for dyeing of cotton with cold brand reactive dyes.

c) Elaborate various methods of energy conservation.

3. Attempt any TWO of the following: **16**

a) Describe quality parameter of water used in textile industry. Write water consumption norms in various departments.

b) Calculate cost of electricity per meter for 100% cotton fabric dyed on 150 kg jigger with reactive dye and 3% shade. Linear density of fabric is 10 meter/kg. Cost of electricity is 6.40 Rs/unit. Motor capacity is 5 HP.

c) Describe requirement of light in various department with their norms.

4. Attempt any TWO of the following: **16**

a) Write the production norms of flat bed and rotary screen printing machine. Also give the factors affecting on production

b) Calculate quantity of water and cost of water required for dyeing with following data:

(i) Quality = 100 % cotton.

(ii) Quantity = 25000 meter.

(iii) Linear density = 8 m/kg.

(iv) Fabric width = 60 inch.

(v) Water hardness = 430 ppm

(vi) Cost of sequesting agent = ₹ 70/kg.

(vii) Cost of water = 16 R5/m^3

(viii) Process = conventional unmercerise bleaching

c) Enlist various materials handling equipment used in textile industry. Explain any one equipment in detail.

Marks

5. Attempt any TWO of the following: **16**

a) Give the production norms of CPB and PDP5 machine. Explain why efficiency of CPB and PDP5 machine 15 upto 60%.

b) What are the various method of safety in textile wet processing?

c) What are the various methods of water conservation? Explain any one method with example.

6. Attempt any TWO of the following: **16**

a) What are parameter to be considered for selection of location for setting modern process house.

b) Calculate cost of water per meter for printing the fabric with following details:

(i) Quality = 100% cotton

(ii) Quantity = 40,000 meter.

(iii) Linear density = 8 m/kg

(iv) Machine = rotary screen printing m/c

(v) No of colour = 8 colour

(vi) Mesh size = 80

(vii) % coverage = 125

(viii) Total consumption = 25000 kg.

c) Enlist the various machines used in textile processing industry with their steam consumption.

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