

22458

23124

3 Hours / 70 Marks

Seat No.

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- 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) 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 purposes of scouring.
 - b) State effect of mercerization on dye uptake.
 - c) State any two properties of Direct dyes.
 - d) List the chemicals required for vat dyeing on cellulosics.
 - e) State any two properties of Pigments.
 - f) Draw a neat labelled diagram of package dyeing machine.
 - g) State any two limitations of Natural dyes.
- 2. Attempt any THREE of the following: 12**
- a) Explain the affinity and substantivity properties of dye.
 - b) Identify the problems and remedies in direct dyeing for cotton.
 - c) Suggest the stepwise procedure for vinyl sulphone reactive dyeing of cotton fabric on Jigger machine.
 - d) Describe the advantages and disadvantages of vat dyes.

P.T.O.

- 3. Attempt any THREE of the following:** **12**
- a) Explain the working procedure and precautions to be taken for Jigger dyeing machine.
 - b) Suggest any two after treatments and their procedure for direct dyed fabric.
 - c) Identify any two problems and their remedies in sulphur dyeing.
 - d) Classify Vat dyes based on their method of applications.
- 4. Attempt any THREE of the following:** **12**
- a) Define % Expression of Padding mangle and calculate % Expression if
Weight of Dry fabric - 2 gms.
Weight of wet fabric - 3 gms.
(after padding)
 - b) Classify the Reactive dyes based on its application methods.
 - c) Explain the advantages and limitations of pigments for coloration of Textiles.
 - d) Compare pigments with dyes for Textile coloration.
 - e) Describe the method of dyeing woolen fabrics with acid dyes.
- 5. Attempt any TWO of the following:** **12**
- a) With neat sketch describe the construction and working of winch dyeing machine.
 - b) Explain the pre mordanting and post mordanting application methods for Natural dyes.
 - c) i) Classify the Acid dyes and explain their properties.
ii) Compare Acid dyes with basic dyes in two points.

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

- a) Justify that reactive dyes are commonly used for cellulosic fabric colouration.
 - b) Explain the stepwise procedure for dyeing of cellulose with vat dyes and suggest the precautions to be taken.
 - c) Describe the stepwise procedure for application of Azoics on cotton fabric. Also write the advantage of this process.
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