

22458

12425

03 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 answer with neat sketches wherever necessary.
(4) Assume suitable data, if necessary.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following:** **10**
- State the effect of desizing dye uptake.
 - State material to liquor ratio of jigger dyeing machine and winch dyeing machine.
 - Suggest chemicals used in vat dyeing.
 - State solubility property of sulphur dyes and vat dyes.
 - State any two limitations of pigment dyeing.
 - Enlist the names of natural dyes.
 - Identify the dyes are preferred in the industry to dye wool and silk substrates.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Define percentage shade and percentage expression with examples.
 - b) Describe extrust dyeing process of reactive hot brand dyes on cotton fabric.
 - c) Explain batch dyeing method of vat dyes on closed jigger dyeing machine.
 - d) Identify any two faults in azole dyed substrates with it's remedies.
- 3. Attempt any THREE of the following:** **12**
- a) Describe with neat sketch the construction and working of package dyeing machine.
 - b) Classify reactive dyes according to their chemical nature.
 - c) Classify vat dyes according to vatting temperature, dyeing temperature concentration of sodium hydroxide and sodium hydro sulphite and use of salt in dyeing.
 - d) Explain method of wool fabric dyeing by using acid dyes.
- 4. Attempt any THREE of the following:** **12**
- a) Define the terms 'Substantivity' and 'Affinity'. Explain its importance in dyeing.
 - b) Suggest the methods to overcome problem of branziness and tendering in sulphur dyeing.
 - c) Compare 'Vat acid' and 'Pigmentation' methods in vat dyeing.
 - d) Describe dyeing process of silk fabric by 'basic' dyes.
 - e) Describe types of mordanting methods in dyeing with natural dyes on cotton fabrics.

- 5. Attempt any TWO of the following: 12**
- a) Describe with neat sketch continuous dyeing range machine with its advantages and limitations.
 - b) Describe with neat sketch pad-dry-pad-steam method of reactive dyeing with its advantages and limitations.
 - c) Describe with neat sketch continuous dyeing method of vat dyes with its advantages and limitations.
- 6. Attempt any TWO of the following: 12**
- a) Suggest 'partial' and 'full' stripping methods of reactive dyes with recipe.
 - b) Describe dyeing process of cotton fabric with azoic colours. State faults and remedies in azoic dyeing.
 - c) Explain the advantages and limitations of natural dyes for dyeing and printing of textiles.
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