## 17466

## 14115

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

Marks

## 1. Attempt any $\underline{\text{TEN}}$ of the following:

**20** 

- a) What are Azoic Colours? How are they classified?
- b) What is the importance of soaping in reactive dyeing of cotton?
- c) What is M:L ratio and how it affects on dyeing?
- d) What are the various methods of fixation of prints?
- e) What are the objectives of "Finishing".
- f) List out the various chemicals used in textile printing.
- g) What is the significance of assessment of "Light fastness".
- h) What are the drawbacks of Roller printing machine?
- i) What are the drawbacks of a Winch dyeing machine?
- j) What is the principle of "Jigger dyeing".
- k) What is the significance of assessment of "Perspiration fastness".
- 1) What are the steps involved in "Vat dyeing".

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|    |    |  | Marks |
|----|----|--|-------|
|    | m) | What is the objectives of mercerisation process?   |       |
|    | n) | Write down the limitations of sulphur dyes?  |       |
| 2. |    | Attempt any <b>FOUR</b> of the following:  | 16    |
|    | a) | What are the different after treatments given to direct dyed fabrics to improve its fastness.            |       |
|    | b) | With a neat and labelled diagram, explain the principle, construction and working of Jet Dyeing Machine. |       |
|    | c) | What are the various methods and styles of printing? Describe discharge style printing.                  |       |
|    | d) | With a printing recipe, explain the process and method of printing of cotton with reactive dyes.         |       |
|    | e) | Describe the construction and working of a HTHP package dyeing machines for yarn dyeing.                 |       |
|    | f) | Describe the various techniques of calendering with their specific properties.                           |       |
| 3. |    | Attempt any <b>FOUR</b> of the following:  | 16    |
|    | a) | With a neat and labelled diagram, explain the Jigger dyeing machine.                                     |       |
|    | b) | Explain the process of "Reactive dyeing" of cotton.  |       |
|    | c) | Give the classification of "Finishing" and the significance of finishing.                                |       |
|    | d) | Explain the construction and working of a "Stenter".   |       |
|    | e) | With a printing recipe, explain the printing of cotton with pigment colours.                             |       |
|    | f) | What are optical brightening agents? Describe its importance in finishing.                               |       |
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| 4. |    | Attempt any FOUR of the following:  | 16 |
|----|----|---|----|
|    | a) | Describe the importance of "Heat setting" and "Sanforsing".                                     |    |
|    | b) | Describe the process of dyeing of polyester with disperse dyes.                                 |    |
|    | c) | Explain "Water repellant" and water proof finishes with their application in textiles.          |    |
|    | d) | Describe the process of dyeing of cotton with vat dyes.   |    |
|    | e) | Explain "Flame retardant" finish and its significance in textiles.                              |    |
|    | f) | What are the advantages and drawbacks of a Rotary Printing Machine.                             |    |
| 5. |    | Attempt any FOUR of the following:  | 16 |
|    | a) | Explain the process of dyeing of acrylic fibres with cationic dyes                              | S. |
|    | b) | With a well labelled diagram, explain the principle construction and working of padding mangle. |    |
|    | c) | Describe "Resist" style of printing with an appropriate example.                                |    |
|    | d) | Explain "resin finish" application process on cotton and its blends                             | s. |
|    | e) | Describe the application process and the significance of "Soil-Release" finish.                 |    |
|    | f) | Explain in detail about the "Flat-bed" printing machine.  |    |
| 6. |    | Attempt any FOUR of the following:  | 16 |
|    | a) | Explain the classification of colouring matter based on applications.                           |    |
|    | b) | Mention the principle and describe the methods for assessment of 'washing fastness".            |    |
|    | c) | Describe process for dyeing polyester/cotton blend fabric.                                      |    |
|    | d) | Distinguish between "yarn dyeing" and "fabric dyeing" process.                                  |    |
|    | e) | What is BAN? How it is determined?  |    |
|    | f) | With neat sketch explain the working of sanforizing machine in finishing.                       |    |
|    |    |   |    |
|    |    |   |    |

Marks