

17458

15116

3 Hours / 100 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) 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) Starting with grey fabric, write down the process sequence involved in the wet processing of textiles.
 - b) Enlist and explain in brief, the modern printing effects used in garment, industry.
 - c) With two examples each, define the terms 'percentage shade' and 'Exhaustion'.
 - d) What is 'Ink jet printing' technique? Explain in brief.
 - e) Enlist the objectives of printing? Also compare between dyeing and printing. (Two points).

P.T.O.

- f) What is 'Foil printing'? Explain in brief.
- g) Write down the procedure of determining the colour fastness to sublimation.

2. Attempt any TWO of the following: 16

- a) What are the objectives of shearing and cropping? With a neat labelled diagram, explain the shearing process.
- b) Enlist and explain the ingredients used in the printing of textiles.
- c) With a line diagram, explain the working of flat bed screen printing machine? Write down its advantages and limitations.

3. Attempt any TWO of the following: 16

- a) Write the objectives of grey inspection? Enlist the machines used and comment on its functions? Write down the criteria for rejection.
- b) What are the Reactive dyes? Write down its classification? Give its general dyeing procedure and comment on the fastness properties.
- c) Write a note on the importance of evaluating the fastness properties of coloured textiles? Write the procedure for determining the colourfastness to perspiration.

- 4. Attempt any TWO of the following:** **16**
- a) Write a detailed note on the enzymatic method of desizing and scouring. Also write the method of evaluating the efficiency of the same.
 - b) Write the procedure of dyeing of polyester with disperse dyes by HTHP method and Thermosol method. Comment on the fastness properties.
 - c) With recipe, write the procedure of printing:
 - (i) polyester with disperse dyes by direct style and
 - (ii) cotton using reactive dyes by resist style.
- 5. Attempt any TWO of the following:** **16**
- a) Write the recipe and procedure of bleaching cotton using hydrogen peroxide? Also write the method of measuring the whiteness index using CCM? Enlist the advantages of H₂O₂ bleaching.
 - b) What are natural dyes? How are they used for dyeing of textiles? Write a detailed note on the selection of dyes for different textile substrates.
 - c) Write the methods for evaluating the fastness to washing and light for the dyed fabric.
- 6. Attempt any TWO of the following:** **16**
- a) What are vat dyes? Write down its classification from vatting and dyeing temperature point of view? Explain the distinct steps involved in the dyeing of vat dyes? Comment on the fastness properties.
 - b) Explain in detail : 'Tie and Dye' and 'Batik' method of printing textiles.
 - c) Explain in detail: 'Flock printing' and 'Foam printing' of textiles.
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