

17458

**21718**

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

**Marks**

**1. Attempt any FIVE :**

**20**

- (a) State the importance of Grey fabric inspection and describe any one machine used for Grey inspection.
- (b) Define the terms and write the formulae for determination of
  - (i) percentage shade,
  - (ii) percentage expression.
- (c) Differentiate between Dyeing and Printing.
- (d) Explain the concept of Ink-Jet printing technique.
- (e) Describe the process of flock printing on textiles with its advantages and limitations.
- (f) Explain the general method for evaluating Rubbing fastness of dyed fabrics.
- (g) Define enzymes. Explain in brief their importance in textile wet processing.

**2. Attempt any TWO :****16**

- (a) State the objective of singeing. Describe the working of Gas singeing machine with proper conditions and precautions during the process. Write its advantages and limitations.
- (b) Describe the method for Dyeing of polyester with disperse dye by HTHP method in Jet dyeing machine. Write its advantages and limitations.
- (c) Describe in detail the construction and working of flat bed printing machine. Write its advantages and limitations.

**3. Attempt any FOUR :****16**

- (a) Describe the bioscouring process for grey cotton fabric.
- (b) Explain the important steps involved in dyeing of cellulose with vat dyes.
- (c) Describe the Tie and dye method of printing for Textiles. Write its advantages and limitations.
- (d) Compare Roller Printing Machine with Rotary Printing Machine.
- (e) Explain the concept of 'transfer printing' for textiles.
- (f) State the importance and general method for evaluation of washing fastness of textile fabrics.

**4. Attempt any TWO :****16**

- (a) State the objective of bleaching. Explain in detail the bleaching of cotton fabric with Hydrogen peroxide. Write the advantages and disadvantages of Hydrogen peroxide bleaching.

- (b) Draw a neat line diagram of open Jigger machine. Describe the construction and working of Jigger machine with its advantages and limitations.
- (c) Explain in detail the various styles of printing on cotton fabric with reactive dyes.

**5. Attempt any FOUR :**

**16**

- (a) Define 'BAN'. State the procedure to determine 'BAN'.
- (b) Write the advantages and limitations of 'Winch Dyeing Machine'.
- (c) Give the classification of Textile printing thickeners with examples.
- (d) Write the advantages and limitations of Rotary Screen Printing Machine over other machines.
- (e) Write importance and method for evaluation of perspiration fastness of the coloured fabric.
- (f) Define 'sublimation fastness'. Explain its effect on dyeing and printing with disperse dyes on polyesters.

**6. Attempt any TWO :**

**16**

- (a) Describe the construction and working of Continuous Bleaching Range (CBR) machine alongwith the conditions and precautions to be taken during process. Write its advantages and limitations.
  - (b) Define Reactive dyes. Give the classification of reactive dyes and explain the various application methods for dyeing of cotton fabric with reactive dyes.
  - (c) Explain the various ingredients used in textile printing paste and their functions. State the procedure to test viscosity of thickener.
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