



# 17342

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.

**Marks**

1. Attempt **any five** :

**20**

- a) State the objects of sizing. List out sizing ingredients and explain the functions of each ingredient.
- b) Give the classification of adhesives. List out adhesives for cotton.
- c) Explain the importance of grey inspection and importance of stitching.
- d) State the objects of shearing and cropping. With the help of neat diagram of 4 cutter shearing and cropping m/c. Explain its working.
- e) State the objects of desizing. Give mechanism of desizing.
- f) What is the purpose of scouring ? State the reactions involved in scouring of cotton by NaOH.
- g) What is the object of bleaching ? List out different types of bleaching agents.

2. Attempt **any four** :

**16**

- a) What are the objects of singeing ? With line diagram explain working of Gas singeing machine.
- b) Stating the keeping and congealing property of starch explain their significance.
- c) Compare plate and roller singeing machines.
- d) Explain the concept of bio-scouring.
- e) With a neat diagram explain construction and working principle of Kier.
- f) State different types of desizing. Explain enzymatic desizing with its merits and demerits.

3. Attempt **any four** :

**16**

- a) State the advantages of Peroxide bleaching over hypochlorite bleaching.
- b) Explain bleaching of cotton with  $H_2O_2$ . State the factors affecting  $H_2O_2$  bleaching.
- c) State the objects of mercerisation. State the factors which affects the mercerisation process.

**P.T.O.**

**Marks**

- d) Explain the various changes brought about by mercerisation process in cotton.
- e) Explain the concept of causticisation treatment.
- f) What is carbonisation of wool ? Explain the treatment in brief.

**4. Attempt any four :****16**

- a) What is Barium activity number ? Explain the method of evaluating the same.
- b) Differentiate between hot and cold mercerisation.
- c) Give the process sequence for pretreatment of silk goods.
- d) What is crabbing of wool ? With suitable diagram explain the method of crabbing of wool.
- e) What is the role of stabilizer in  $H_2O_2$  bleaching ? Enlist the stabilizer used in peroxide bleaching.
- f) Give the method of scouring of coloured woven goods.

**5. Attempt any four :****16**

- a) Describe any one method for degumming process of silk.
- b) What is mercerisation ? With a neat diagram explain yarn mercerisation.
- c) Explain the method for evaluation of bleaching efficiency.
- d) With a neat labelled diagram explain working principle of Jigger machine.
- e) Describe the method for evaluation of desizing efficiency.
- f) With a neat diagram, explain continuous desizing method.

**6. Attempt any four :****16**

- a) Describe any one method for testing a softener.
  - b) Describe ten point system of fabric inspection.
  - c) State the different types of faults in grey fabric. State the criteria for fabric rejection.
  - d) Give a method of evaluation of scouring efficiency.
  - e) Give the advantages of continuous bleaching over batchwise method of bleaching.
  - f) Describe a concept of liquid ammonia mercerisation.
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