

**17342****21415**

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) Figures to the **right** indicate **full** marks.

**MARKS**

1. Answer **any five** : **(5×4=20)**
- a) Give classification of adhesives.
  - b) Explain types of faults in grey fabric.
  - c) Compare batch and continuous method of desizing.
  - d) Define 'Scouring'. Write reactions involved in scouring.
  - e) Explain bleaching of coloured woven goods.
  - f) Define 'barium activity number'. Outline a method of its determination.
  - g) Write preparatory process sequence for silk goods.
2. Answer **any two** : **(2×8=16)**
- a) i) Describe enzymatic-desizing.  
ii) Explain effect of :
    - 1) pH
    - 2) temperature – on enzyme activity.
  - b) i) Explain mechanism of peroxide bleaching.  
ii) Name stabilisers and explain their role in peroxide bleaching.
  - c) i) Describe rapid carbonising process for wool.  
ii) Explain degumming of silk by soap.
3. Answer **any two** : **(2×8=16)**
- a) i) Describe congealing properties of starch.  
ii) Explain role of softeners in sizing.
  - b) Describe scouring of : Knitted goods or coloured woven goods.
  - c) Explain any four changes in properties of cellulose due to mercerisation.

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4. Answer **any two** : **(2×8=16)**
- a) i) Compare plate and roller singeing machines.  
ii) Explain working principle of gas singeing machine.
  - b) Explain advantages and disadvantages of peroxide bleaching over hypochlorite bleaching.
  - c) i) Explain concept of 'causticisation'.  
ii) State factors which affects mercerisation process.
5. Answer **any two** : **(2×8=16)**
- a) Describe four point and ten point system of fabric inspection.
  - b) Explain working principle of :
    - i) High pressure Kier
    - ii) Jigger.
  - c) Describe liquid-ammonia process of mercerisation.
6. Answer **any four** : **(4×4=16)**
- a) Write size paste formulation for polyester/cotton blend.
  - b) Draw a line-diagram of two cutter shearing and cropping machine.
  - c) Describe a method to determine efficiency of desizing.
  - d) Describe bio-scouring.
  - e) Compare semicontinuous and continuous methods of bleaching.
  - f) i) Define 'crabbing' of woolen fabric. **1**  
ii) Outline the process of crabbing. **3**
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