15116

3 Hours / 100 Marks   Seat No.

Instructions : (1) **All** questions are **compulsory**.
(2) Answer **each** next main question on a **new** page.
(3) Figures to the **right** indicate **full** marks.
(4) Mobile Phone, Pager and any other Electronic Communication devices are **not** permissible in Examination Hall.

Marks

1. Answer **any five** :   **(5×4=20)**

   a) State object of sizing. Enlist ingredients used in sizing with their functions and examples.

   b) Write significance of pretreatments and explain pretreatment sequence for 100% cotton woven fabrics.

   c) Describe procedure for identification of size in grey fabric.

   d) Explain reactions involved in scouring process.

   e) Write mechanism of peroxide bleaching with process control parameters.

   f) Describe changes in cotton by mercerisation.

   g) Describe preparatory process sequence for woolen fabrics.

2. Answer **any four** :   **(4×4=16)**

   a) Describe congealing property of starch. Explain its significance.

   b) State faults in grey fabric and write four point system of fabric inspection.

   c) State objects of desizing and write mechanism of enzyme desizing.

   d) Distinguish between alkaline scouring and bio-scouring.

   e) Describe role of stabiliser and activator in peroxide bleaching.

   f) Distinguish between mercerisation and causticisation.

3. Answer **any four** :   **(4×4=16)**

   a) State object of softners in sizing. Compare any two softners.

   b) Draw labelled diagram of 4-cutter shearing and cropping machine.

   c) Describe evaluation method for efficiency of desizing.

   d) Write recipe and process control parameters for scouring of knit goods.

   e) State object and describe bleaching of coloured woven goods.

   f) Draw labelled diagram of yarn mercerisation.

4. Answer **any four** :   (4×4=16)

   a) State receipe of size paste for p/c blended yarn. Write functions of each ingredients.

   b) Draw a labelled diagram of gas singeing machine.

   c) Describe factors affecting action of enzymes in desizing process.

   d) Describe working principle of J-box with a diagram.

   e) Write any two developments in bleaching process with respect to energy conservation.

   f) Write procedure to find out farium activity number of mercerised fabric.

5. Answer **any four** :   (4×4=16)

   a) Describe importance of stitching in processing.

   b) State and describe evaluation of the efficiency of scouring.

   c) Describe factors affecting peramide bleaching.

   d) What is the concept of hot mercerisation ?

   e) State advantages and limitations of liquid ammonia mercerisation.

   f) Describe pretreatments given for silk goods.

6. Answer **any four** :   (4×4=16)

   a) Draw a flow chart for pretreatments given to polyester/cotton blended fabric.

   b) Distinguish between batchwise and continuous scouring process.

   c) State advantages and limitations of sodium hypochloride bleaching.

   d) Explain factors affecting mercerisation process.

   e) Describe scouring of wool in top form.

   f) Describe degumming of silk by enzyme method.

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