

17576

**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) 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 :**

**20**

- (a) Enlist and explain the objectives of finishing treatments.
- (b) Draw a neat & labelled diagram of calendaring machine and explain its working principle.
- (c) Define ‘% expression’ and ‘% add on’ with one example each.
- (d) Enlist the objectives of wash down effects on denim garments.
- (e) Draw a neat & labelled diagram of a tumble drier and write its working principle.
- (f) Write a note on Nano finishes.
- (g) Explain the term ‘Speciality finishes’.

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

- (a) Write the mechanism involved in the crease resisting finishing of cotton. Explain the pre-cure and post-cure method of resin finishing of cotton fabrics.
- (b) Write down the principle and working procedure of garment dyeing machine & washing machine.
- (c) Explain 'UV protection finish' and 'fragrance finish' in detail.

**3. Attempt any TWO :****16**

- (a) With a neat & labelled diagram, explain the working principle of sanforising and compacting machine.
- (b) With a proper flow chart, write the process sequence of stone washing of denim garments. Also write the advantages and limitations of stone washing.
- (c) With a neat & labelled diagram, explain the working principle of curing cabinet and fusing machines.

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

- (a) Define 'softeners'. Give the classification, mechanism and properties of different softeners.
- (b) Explain the term "Stoneless stone wash effect". Also write the distinct steps involved in the bio-polishing of denim garment with a neat diagram.
- (c) With a neat & labelled diagram, explain the working principle of a pressing machine and hydro extractor.

**5. Attempt any TWO :****16**

- (a) With a neat & labelled diagram, explain the working principle of decatizing and crabbing process.
- (b) Explain the term 'Flame Retardant finish' ? Write objective, principle & working of flame retardant finishes and end uses of flame retardant finished fabrics with two examples.
- (c) Explain the mud wash, and Ion wash treatments of denims. Give two advantages and limitations each of both washes.

**6. Attempt any TWO :****16**

- (a) Write a detailed note on water repellent finish and anti-microbial finish. Also write two applications each of both finished fabrics.
  - (b) Explain the term 'puckering effect' and 'sand blasting'. Write the procedure to achieve the effects.
  - (c) Write a detailed note on the different types of stains and stain removing agents. (any four)
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