17566

21819

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) Assume suitable data, if necessary.

(5) Use of Non-programmable Electronic Pocket Calculator is permissible.

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

(7) Use of steam tables, logarithmic, Mollier's chart is permitted.

Marks

1. Attempt any TEN of the following : **20**

(a) State the objective of the "Heat setting" process.

(b) Define "Pilling". State its causes.

(c) Define the terms :

(i) Foam

(ii) Blow-ratio

(d) Describe various types of soil.

(e) State the sequence for processing of woollen fabrics.

(f) What are the different types of Heat Setting ?

(g) Enlist the latest finishing applied to textile materials.

(h) Enlist the various methods of application of Foam.

(i) What are the chemicals used for the application of soil release finish ?

(j) List the finishing agents used for finishing of micro denier polyester fabrics.

(k) What are the heat-setting conditions for poly cotton and poly viscose fabrics ?

(l) Enlist the chemicals applied to fabrics to minimize pilling problem.

(m) What are the precautions to be taken during the application of foam finish ?

(n) Define the term "Nanotechnology".

2. Attempt any FOUR of the following : 16

(a) Explain in detail the Mechanism of Heat Setting.

(b) Explain the Mechanism of Pilling.

(c) Explain the properties of Foam and also the significance of its stability.

(d) What are the various factors affecting the soiling of fabrics, explain them.

(e) Explain the Shrinkage method used for the evaluation of efficiency of Heat setting.

(f) Explain in details the factors affecting Pilling.

3. Attempt any FOUR of the following : 16

(a) What do you understand by "Nano-Technology" ? Describe its features and significance in textile.

(b) Describe the structural changes occurring in the textile fibres during the Heat Setting process.

(c) What are the various physical and chemical methods to reduce or minimize pilling ?

(d) Explain the factors affecting the stability of Foam.

(e) Explain the Mechanism of Soiling of textiles.

(f) Give the conditions for heat-setting of 100% PET, Texturised PET.

4. Attempt any FOUR of the following : **16**

(a) Explain the heat setting conditions for Poly Cotton and Poly wool.

(b) Describe the application of Nono-technology in textile finishing with suitable examples.

(c) Explain in detail any two methods of application of Foam.

(d) Describe with suitable examples one of the Novel finishing techniques.

(e) Describe the method of evaluation of efficiency of soil release finishing.

(f) Describe the process of finishing of polyester for silk finish.

5. Attempt any FOUR of the following : **16**

(a) Describe the application of microencapsulation in textile finishing.

(b) What are the advantages and disadvantages of foam finishing ?

(c) Explain the importance and objectives of the soil release finish.

(d) Describe the process and parameters for the finishing of Knitted fabrics.

(e) Explain in detail the concept of Macro, Micro & Nano emulsions in textile finishing.

(f) Explain the finishing sequence and process parameter involved in the finishing of worsted fabrics.

P.T.O.

6. Attempt any FOUR of the following : **16**

(a) Explain application of Nano-technology in medical textiles with suitable example.

(b) What are smart textiles ? Give one example.

(c) Give classification of soils.

(d) Give the properties of foam and enlist the stabilizers used in it.

(e) Describe the effect of temperature on stability of foam.

(f) Why synthetic fabrics are more prone to pilling ? Explain.
