22577

12425

03 Hours / 70 Marks Seat No. | | | | | | | | |

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) 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.

Marks

1. Attempt any FIVE of the following: **10**

a) Define the term "finishing".

b) Enlist any four causes of pill formation.

c) Define the term "Soil".

d) State the types of Soil.

e) State any two minimum application technique and its concepts.

f) Define the term GSM and GLM with suitable example.

g) State the types of emulsion.

Marks

2. Attempt any THREE of the following: **12**

a) Describe the mechanism of heat setting.

b) Describe the concept and mechanism of pill formation.

c) Describe the mechanism of soil release for particulated soil.

d) Differentiate between exhaust application and padding application (any four points)

3. Attempt any THREE of the following: **12**

a) Compare gray stage of heat setting with after dyeing stage. (any four points).

b) Explain soil release evaluation method for particulated soil.

c) Describe 'horizontal padding mangle' with neat labelled sketch. Enlist any two advantages and this method.

d) Describe factors affecting the weight reduction process of polyester.

4. Attempt any THREE of the following: **12**

a) Explain effect heat setting temperature on dyeability of polyester fibre with neat graph.

b) Explain shrinkage method for evaluation of efficiency of heat setting of PET fabric.

c) Calculate total finish chemicals formulation required for finishing of 5000 m fabric under ideal conditions. GSM = 200, width = 150 cm, percentage expression = 70% and trough capacity = 50 lts.

d) Formulate recipe for polyester to get soft finish and elaborate the application procedure.

e) Explain any two applications of nano technology in textiles with one example for each.

Marks

5. Attempt any TWO of the following: **12**

a) Elaborate the thermal behaviour and the changes brought by heat setting in case of PET fabric.

b) Elaborate the physical antipilling methods to combat pill formation in p/c blended fabrics.

c) Describe with flow chart acid milling process of wool. State it's advantages and disadvantages. (any two each)

6. Attempt any TWO of the following: **12**

a) Elaborate the relevant factors responsible for soiling of polyester fabrics.

b) Formulate recipe for polyester fabric to get flame retardant finish. Explain the procedure and give two uses of finished fabric.

c) Differentiate between water repellent and water proof finishing of cotton (six points having one points as examples for end uses).