17469

15116

3 Hours / 100 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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

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

a) Enlist various application techniques of finishes on textile materials.

b) Define the terms:

(i) % Expression

(ii) % Add - on

c) State any two uses of a stenter.

d) Write the chemical structure of DMDHEU.

e) What is durable press finishing? Write the process sequence for durable press finishing.

f) Write the structure of any two Eco friendly cross linking agents.

g) State the objects of OBA finishing.

Marks

h) Define the following terms:

(i) Subjective whiteness

(ii) Saturation whiteness

i) Enlist various types of fabrics finished for antimicrobial finishing.

j) Write the objects of antimicrobial finishing.

k) Write the limitations of natural antimicrobial finishes.

l) Write the applications of water repellent and water proof finishing.

m) Define the term 'Nanotechnology'.

n) Write the name of enzyme used for biopolishing of cotton fabrics.

2. Attempt any TWO of the following: **16**

a) Write the objects of finishing with softners. Give classification of softness with examples.

b) Write the objects of calendering. Describe the working of anyone calender machine.

c) Write the importance of dimensional stability in processing of fabrics. Describe with neat, labelled sketch the working of Sanforising machine.

3. Attempt any TWO of the following: **16**

a) Write the objects of finishing on textile materials. Give classification of finishing with examples.

b) Write any four properties of cationic softner. Describe mode of action of application of cationic softner and anionic softner on cotton fabrics.

c) Which type of softners are used for application on polyester. Describe the method of application of silicone softners on variety of fabrics. Write any four properties of silicone softners.

Marks

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

a) Describe the classification of OBA finishing. Explain the methods of applications of OBA finishing.

b) Which fabrics are finished with resin? Write the general recipe for resin finishing of cotton shirting fabric. Describe the role of each ingredient in recipe formulation with examples.

c) Write limitations of resin finishing. Describe the method of evaluation (any one method) for resin finished fabrics. Write the significance of D.P. rating in resin finishing.

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

a) Explain burning cycle of textile fibres. Enlist and explain any four factors affecting burning behaviour of textiles.

b) Define the term 'Limiting Oxygen Index'. Explain the importance of L.O.I. Write LOI values of any four textile fibres with their flaming behaviour.

c) Describe mechanism of solid phase and gas phase flame retardants. Write any four essential requirements of a good flame retardant.

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

a) Describe mechanism of resin finishing. Write conditions for application of resins on Textile fabrics by various methods.

b) Describe mechanism of antimicrobial finishing. Write two types of antimicrobial finishes. Describe the method of evaluating antimicrobial finished fabrics.

c) Differentiate between water proof finishing and water repellent finishing. Describe the process of biopolishing with it's objects.