17466

15162

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) 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 TEN of the following: **20**

a) Give the classification of direct dyes.

b) Enlist the objectives of blending.

c) Differentiate between batch process and continuous process.

d) Define the term printing.

e) Enlist any four objectives of finishing.

f) Give two examples each of mechanical finishes and chemical finishes.

g) State properties of Ice colours.

h) Write the names and the chemical formulae of the chemicals used for dissolution of sulphur dyes.

Marks

i) List the advantages of yarn dyeing over to fabric dyeing.

j) Enlist the different methods of printing.

k) Describe the classification of finishes.

l) Enlist any four finishes which are applied on cotton.

m) Enlist the dyes which are used for dyeing of cellulosic fibres.

n) Explain the terms 'Add-on' and '% Expression'.

o) Write a note on the heat setting of polyester.

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

a) Explain sub-classification of vat dyes and mention their vatting temperature, dyeing temperature. Alkali and hydrose concentrations required during dyeing.

b) Draw a labelled diagram of a package dyeing machine and write its principle of working.

c) Enlist and explain the principle involved in different styles of printing.

d) Write a note on the different types of resins used for finishing of cotton fabrics.

e) Write a note on the dyeing of polyester cotton blends? Enlist the dyes combination which can be used.

f) What is optical brightening treatment? Write the chemistry involved in OBA finish. Also give two examples of OBA's.

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

a) Write down the procedure of dyeing nylon using dispuse dyes. Also enlist the machineries which can be used for dyeing.

b) Draw a neat labelled diagram of different types of padding mangles used for dyeing of textiles.

c) Describe printing of cotton fabric using pigments by using direct style of printing.

Marks

d) Write a detailed note on the soil releasing finishes of textiles.

e) Explain dyeing polyester/cotton blended fabric on a Jigger dyeing machine.

f) Draw a labelled diagram of flat bed screen printing machine and write its working principle.

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

a) Summarise retarders used for dyeing of acrylic fibres.

b) Explain the working principle of a winch dyeing machine with a neat labelled diagram.

c) Give the procedure of carrying out white discharge of vat dyed fabrics.

d) Draw a labelled diagram of a vertical drying range. Explain its working principle.

e) Explain any four after treatments which are carried out on direct dyed fabrics to improve the fastness properties.

f) Differentiate between water proof finish and water repellent finishes.

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

a) Explain the different methods of dyeing of polyester using dispuse dyes.

b) Differentiate between Jigger dyeing machine and Jet dyeing machine.

c) Draw a labelled diagram of a Roller printing machine.

d) Write a note on the flame retardant finishes.

e) Explain different methods of blend dyeing and various colour effects achieved.

f) Write the recipe and procedure of printing of cotton using reactive dyes by direct style of printing.

Marks

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

a) Write classification of reactive dyes and explain application procedure of any two classes.

b) Draw a labelled diagram of a rotary printing machine. Also write its working principle two advantages and two limitations.

c) With labelled diagram, explain the different effects achieved by calendaring machine.
