Scheme - I

Sample Question Paper

Program Name : **Diploma in Textile Technology**
Program Code : **TC**
Semester : **Fifth**
Course Title : **Dyeing of Synthetic Fibres**
Max. Marks : **70** **Time: 3 Hrs.**

22575

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FIVE of the following. **10 Marks**

a. State the pretreatments given to polyester fabrics.
b. State material to liquor ratio for package dyeing and jet dyeing machine
c. List dyeing methods for colouration of polyester substrate.
d. State advantages of thermosol dyeing.
e. List dyeing used for colouration of nylon substrate.
f. State function of retarders in acrylic dyeing.
g. State colour effects produced by blending the fibres.

Q.2 Attempt any Three of the following. **12 Marks**

a. Describe the effect of heatsetting on dyeing of polyester fabric.
b. With time temperature profile describe dyeing of polyester by H.T.H.P. method.
c. Explain the mechanism of nylon dyeing with metal complex dyes.
d. Describe the dyeing of acrylic with cationic dyes.

Q.3) Attempt any Three of the following. **12 Marks**

a. With neat sketch explain the construction and working of jet dyeing machine.
b. Differentiate the conventional jet dyeing with rapid jet dyeing.
c. Justify the need of levelling agent in nylon dyeing.
d. Analyse the importance of the term “Fibre saturation factor” and “dye saturation value” in acrylic dyeing.

Q.4) Attempt any Three of the following. 12 Marks

a. Suggest precautions for dyeing of texturized polyester.

b. Describe dyeing of polyester / cotton blended fabric with disperse / reactive dyes by one bath two stage dyeing technic.

c. With time temperature profile describe dyeing of acrylic / wool blend dyeing.

d. Suggest remedies for faults occurred in blend dyeing.

e. With near sketch describe dyeing of nylon blend dyeing.

Q.5) Attempt any Two of the following. 12 Marks

a. With neat sketch describe construction and working of continuous dyeing range.

b. Describe dyeing of polyester fabric with disperse dyes by carrier dyeing method with advantages and limitations.

c. Compare the dyeing of nylon with acid, basic and metal complex dyes with respect to application and fastness properties.

Q.6) Attempt any Two of the following. 12 Marks

a. Explain the mechanism of different types of retarders used in acrylic dyeing. State the advantages of Difitherm dyeing process.

b. Compare the techno commercial aspects of dyeing blends with respect to single component substrate.

c. Identify the problems associated with shade matching in blended substrate and describe their solutions.

Scheme - I

Sample Test Paper - I

Program Name : **Diploma in Textile Technology**
Program Code : **TC**
Semester : **Fifth**
Course Title : **Dyeing of Synthetic Fibres**
Max. Marks : **20**

22575

Time: 1 Hour

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a. State importance of pre-treatments before dyeing of polyester.
b. List machines used for colouration of synthetic substrates.
c. List colouration methods for polyester.
d. Enlist any four advantages of carrier dyeing
e. State advantages of thermosol dyeing.
f. List dyes used for colouration of nylon substrates.

Q.2 Attempt any THREE. **12 Marks**

a. With near sketch describe construction and working of package dyeing machine.
b. Explain advantages and limitations of mass colouration.
c. Describe dyeing of micro denier polyester by H.T.H.P dyeing method.
d. With dyeing mechanism describe dyeing of nylon with acid dyes.
e. Explain the dyeing parameters with affects the quality of nylon dyeing.

Scheme - I

Sample Test Paper - II

Program Name : **Diploma in Textile Technology**

Program Code : **TC**

Semester : **Fifth**

22575

Course Title : **Dyeing of Synthetic Fibres**

Max. Marks : **20** **Time: 1 Hour**

Instructions:

(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a. State types of retarders used in acrylic dyeing

b. Define fibre satuation factor.

c. Define dye saturation value.

d. List popular blend types.

e. List dyeing methods for blended substrates.

f. Enlist any four problems in blend dyeing.

Q.2 Attempt any THREE. **12 Marks**

a. Describe role of retarders in acrylic dyeing.

b. Describe dyeing of acrylic substrate with cationic dyes.

c. Differentiate colouration of single component substrate and blended substrate.

d. Describe dyeing of polyester / cotton blended fabric with disperse / vat dyes.

e. Describe dyeing of nylon / wool blended substrate with suitable dye class.