Scheme – I

Sample Question Paper

Program Name : Diploma in Textile Technology

Program Code : TC

Semester : Fourth

Course Title : Dyeing of Natural Substrates

22458

Max. Marks : 70 **Time: 3 Hrs.**

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 effect of mercerization on dyeuptake.
b. Define affinity with examples.
c. State any two properties of vat dyes.
d. List chemicals required to reduce sulphur dyes.
e. State any two names of napthols and bases each.
f. State any two advantages of pigment dyeing.
g. List types of retarders used in acid dyeing.

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

a. Define percentage expression and percentage shade with examples
b. Explain with sketches the pad-batch semi-continuous dyeing method with reactive dyes for cotton fabric.
c. Identify any two faults in vat dyed substrates with its remedies.
d. Describe advantages and disadvantages of natural dyes.

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

a. Describe with neat sketch construction and working of Jigger dyeing machine.
b. Identify problems, their causes and remedies in direct dyeing.
c. Compare properties of sulphur and vat dyes.
d. Describe dyeing procedure of wool with acid dyes.

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

a. Describe the effect of 'Áffinity of dye' in exhaust and continuous dyeing process.
b. Describe with chemical reactions 'Reduction of sulphur dyes'.
c. Describe steps involved in dissolution of bases.
d. Classify natural dyes according to its sources.
e. Explain importance of stripping in dyeing.

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

a. Calculate the quantity of dye and water required to dye 600 mts of fabric on Jigger dyeing machine.

   Data:- a) Percentage shade -1.75 %

   b) Fabric quality – 150 gms/ mtr

b. Describe after treatment methods to improve fastness properties of direct dyed substrates.
c. Describe with sketch pigmentation method of vat dye.

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

a. Compare batchwise and continuous method of reactive dyeing.
b. Describe with sketches application of azoics on cotton fabric by continuous dyeing method.
c. Compare pre, post and simultaneous methods mordanting.

Scheme – I

Sample Test Paper - I

Program Name : **Diploma in Textile Technology**

Program Code : **TC**

Semester : **Fourth**

22458

Course Title : **Dyeing of Natural Substrates**

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. Define percentage expression with example.

b. State MLR of Jigger and winch dyeing machine.

c. State any two quality parameters required for RFD.

d. State any four properties of direct dyes.

e. List types of reactive dyes.

f. State any for types of fastness properties .

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

a. Describe with sketch dyeing of cotton with direct dyes.

b. Explain any two after-treatments given to direct dyed substrates.

c. Classify reactive dyes.

d. Describe effect of desizing and scouring on dyeability.

e. Calculate the quantity of dye required for 125kg fabric to produce 0.75 % shade.

Scheme – I

Sample Test Paper - II

Program Name : **Diploma in Textile Technology**

Program Code : **TC**

Semester : **Fourth**

22458

Course Title : **Dyeing of Natural Substrates**

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 vat dyes.

b. List chemicals required in sulphur dyeing.

c. Name any two bases

d. Define pigments.

e. State any four advantages of natural dyes.

f. List any four mordants.

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

a. Describe with sketch vat acid method of dyeing.

b. Identify faults in sulphur dyeing and describe their remedies.

c. Describe limitations of azoic dyeing.

d. Describe dyeing of silk with basic dyes.

e. Classify natural dyes.