Scheme - I
Sample Question Paper

Program Name : **Diploma in Textile Technology**

Program Code : **TC**

Semester : **Sixth**

22670

Course Title : **Textile Process Planning and Management**

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 objects of process planning
b. Write procedure to calculate machine production
c. State the norms of water quality used in textile industry.
d. List various fuels used in textile wet processing.
e. List the dyes used for cotton fabric
f. Name any two chemical used for resin finishing.
g. State the importance of material handling.

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

a. Explain the general method of calculating the working efficiency and machine efficiency in a process house
b. Describe the method for water conservation in textile processing
c. Calculate the energy consumption of 02 tons kg capacity jigger dyeing machine for dyeing using H brand reactive dyes.
d. Describe the effect of lighting in textile industry

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

a. Summarize the production norms of scouring and bleaching process.
b. Calculate water consumption in finishing department.
c. Explain different types of fuels used in textile processing.
d. Calculate the quantity of dye and chemical required for dyeing of polyester fabric with 2% disperse dye.

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

a. Describe the selection criteria for selection of site for modern process house.
b. Calculate number of stenter machine required for 1, 00,000 meter par day production.
c. Describe the various ways to minimise energy consumption in dying and printing department
d. Explain the steps to calculate chemical consumption in textile wet processing.
e. Suggest the various steps to minimize accidents in textile industry.

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

a. Suggest the criteria for selection of location for fabric processing unit with justification.
b. Calculate number of jigger machine required for dyeing of 100 % cotton fabric with following data

   Quality = 1, 00, 000 meter
   Width = 150 cm
   GSM = 200gm
   Capacity= 500 kg
   Dye = reactive dye

c. Calculate cost of water meter and quantity of water required in process house for following data:

   Quality = 100% cotton
   Quantity = 150000 m
   Linear density = 8 m/kg
   Cost of water = 16 Rs/m^3
   Process = Conventional unmercerised bleaching.

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

a. Calculate the water consumption per machine for scouring of 100% cotton in bleaching department

b. Calculate cost of steam par meter for following data

   Quality = 100 % cotton
   Quantity = 10,000 meter
   Lanier density = 10 m/kg
   Process = Conventional Bleaching

c. Calculate cost of chemical par meter for dyeing of polyester fabric

   Quality = 100 % cotton
   Quantity = 10,000 meter
   Lanier density = 10 m/kg
   Cost of dyes = 400Rs/ kg
   Cost of NaCl = 10Rs /Kg
   Cost of Na_2CO_3= 20 Rs / kg

Scheme - I

Sample Test Paper - I

Program Name : **Diploma in Textile Technology**

Program Code : **TC**

Semester : **Sixth**

22670

Course Title : **Textile Process Planning and Management**

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 the objectives of plant layout
b. State the tips for preparation of plant layout
c. Define Working efficiency.
d. State the formula to calculate production of continues machine.
e. State the MLR of jigger, winch, Soft flow, Jet machine
f. Enlist the water quality parameter.

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

a. Suggest the parameter for selection criteria of location for modern process house

b. Explain the benefits of Single storage building

c. Calculate number of kier machine required for process house,

1. Expected production = 7000 meter.
2. Capacity of kier = 2 tons.

d. Calculate number of flat bed and rotary machine required for modern Process House if expected production is 175000 meter par day.

e. Explain the methods to conserve water.

Scheme - I

Sample Test Paper - II

Program Name : **Diploma in Textile Technology**

Program Code : **TC**

22670

Semester : **Sixth**

Course Title : **Textile Process Planning and Management**

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. Classify fuel used in textile industry.
b. Define calorific value.
c. List the dyes used for cotton.
d. Enlist machine used for dyeing of polyester.
e. State the importance of lighting.
f. Name any two machine used for material handling.

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

a. Calculate amount of energy required to dry 100 kg fabric which is dyed with 60 % expression
b. Enlist various methods conserve energy in textile wet processing
c. Calculate the quantity of dye and chemical required for dyeing of polyester fabric with 2% disperse dye.
d. Explain the position of lighting at work place.
e. Describe the cause of fire hazards in textile industry.