22243

11920

3 Hours / 70 Marks   Seat No.

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.

Marks

1.   Attempt any FIVE of the following :   **10**

(a)   Define Textile Fibre and name any two natural fibre.

(b)   State the objectives of carding.

(c)   Define Staple Yarn.

(d)   Define Tex and Denier.

(e)   Define the term Non-woven with examples.

(f)   State the objective of Drawing-in.

(g)   Define design and draft.

(h)   A polyester yarn package of 150 Denier weights 1.5 kg. Calculate the length of yarn it contains.

2.   Attempt any THREE of the following :   **12**

(a)   Describe the cultivation of cotton fibre.

(b)   Compare the properties of ring yarn with open end yarn.

(c)   State the properties of fibre which are essential for Textile fibre application.

(d)   Draw the flow chart of Combed Yarn manufacturing.

3. **Attempt any THREE of the following :** 12
    (a) Define the terms :
        (i)   Yarn count
        (ii) English count
        (iii) Metric count
        (iv) Worsted count
    (b) Compare weaving with Knitting.
    (c) Classify the looms into different catagories.
    (d) Prepare a flow chart for manufacturing of stripe pattern fabric.

4. **Attempt any THREE of the following :** 12
    (a) State the effect of
        (i)   Size pick up
        (ii) Stretch in warp
        (iii) Size add on,
        on the quality of sized beam produced.
    (b) State the objectives of winding, warping and sizing.
    (c) Select the cone specifications for cone dyeing with justification.
    (d) Draw draft, design and lifting plan of 2×2 warp rib on 8 ends and 8 picks. Draw cross section through weft.
    (e) Draw design, draft and peg plan of $\dfrac{2}{2} \dfrac{3}{1}$ twill weave.

5. **Attempt any TWO the following :** 12
    (a) Define ginning. Which type of ginning machine is used for very dirty and short staple cotton. Explain the process.
    (b) Define the terms :
        (i)   Hosiery yarn
        (ii) Double yarn
        (iii) Maturity
        (iv) Strength
        (v)   Hairiness
        (vi) Evenness
    (c) Describe a method to measure the yarn count of cotton yarn.

6. **Attempt any TWO of the following :** 12

   (a) (i) Find the resultant count of cotton yarns when they are doubled if the single yarn count is 32^s Ne and 40^s Ne.

   (ii) Convert yarn count 20^s Ne into Tex, Denier, Metric and Woolen System.

   (b) (i) State the objective of Shedding, picking and beat up.

   (ii) Compare shuttle loom with shuttleless loom.

   (c) Describe the design process for marking Satin weave and compare design of Satin and Sateen weave. Construct all possible regular sateen weaves repeating on 8 ends and 8 picks.

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