22234

11819

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.

(5) Use of Non-programmable Electronic Pocket Calculator is permissible.

Marks

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

(a) State the type of soil required for cotton crop.

(b) Identify machines that (i) removes seed from seed cotton (ii) forms sliver from lap.

(c) State objects of blow room.

(d) Name two examples of indirect and direct yarn numbering systems each.

(e) Define warp and weft in fabric with help of sketch.

(f) State the objects of process that improves yarn weaveability.

(g) State objects of yarn winding process.

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

(a) State objects of bale formation and give weight and dimensions of Indian cotton bale.

(b) Describe the process flow chart of combed yarn manufacture.

(c) State the objects of Draw-frame and card.

(d) Classify yarns giving one example of each type.

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

(a) Define Tex, English count, Metric count and Denier yarn numbering systems.

(b) Convert 40^s Ne in worsted and Tex counts.

(c) Find the resultant count when $2/40^s$ Ne, 60 Tex yarns are doubled.

(d) State the objects of winding and pirn winding.

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

(a) Give the process flow chart for warp and weft striped fabrics.

(b) Compare merits of woven and non-woven fabrics.

(c) State objects of dobly and jacquard shedding mechanisms.

(d) Identify process to classify yarn faults based on its length and diameter and describe the same.

(e) Give reasons for patterning defect, soft package, slough off in winding process.

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

(a) Distinguish features of hosiery yarn, textured yarn and open end yarn.

(b) Describe the passage of material through Ring frame machine with sketch.

(c) A yarn measuring 100 km weights 2.5 pounds, Find the yarn linear density in Ne, Tex and Metric systems.

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

(a) Compare plain loom, auto loom and shuttle less loom for their quality and productivity.

(b) Calculate fabric cover factor if it has 90 epi, 60 ppi, warp count is 80^sNe and weft count is 40^sNe, warp crimp is 4% and weft crimp is 6.5%.
Also find out fabric GSM.

(c) Describe with neat sketch working of single lift single cylinder Jacquard shedding mechanism.
