22462

23242

3 Hours / 70 Marks Seat No. | | | | | | | | |

Instructions : (1) All Questions are *compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

Marks

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

(a) State the objects of Pirn winding.

(b) State the reason for soft/hard pirn. State the cause for its occurrence.

(c) Draw the drive to crank shaft and bottom shaft on a plain power loom.

(d) Draw and name the different parts of pirn.

(e) State the function of temples. Enlist the different types of temples used on a loom.

(f) State the requirements of pirn for an automatic loom.

(g) Classify the woven fabric defects.

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

(a) Explain with a diagram the working of negative tappet shedding mechanism.

(b) (i) Define : Stockport Reed Count.

(ii) A loom is weaving fabric with 3/64 stockport reed. Calculate the ends/inch in reed.

(c) Draw skip draft for a plain weave. Explain its importance.

(d) Define : Eccentricity of sley. State its importance for beat-up motion.

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

(a) Describe with a diagram the 'Built of a Pirn' with regards to (i) Diameter (ii) Initial taper (iii) Tail end and (iv) Bunch length.

(b) Enlist the types of Let-off and Take-up mechanisms. State the objects of (i) Let-off motion and (ii) Take-up motion.

(c) List the different types of heald wires. State the merits and demerits of any one of them.

(d) Distinguish between overpick mechanism and underpick mechanism.

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

(a) Draw a labelled diagram of seven wheel take-up motion.

(b) Suggest the method of indicating loom timing. Also suggest the timing for negative tappet shedding with a diagram.

(c) Describe with a diagram the working of beat-up mechanism.

(d) State the function of following parts of a shuttle box :

(i) Check strap

(ii) Box swell

(iii) Picker

(iv) Buffer

(e) State the function of following loom parts :

(i) Picker

(ii) Sley

(iii) Shuttle box

(iv) Heald shaft

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

(a) Explain the following fabric defects. State the causes and remedies for the same.

(i) Starting marks

(ii) Weft bar

(iii) Lashing-in

(b) List the different warp defects occurring on a loom. State the cause and remedy for any two of these defects.

(c) Calculate the weight of weft in kgs. for a fabric having following particulars :

(i) Fabric width – 48 inches

(ii) Fabric length – 1000 meters

(iii) Picks per inch – 80

(iv) Weft count – 40 Ne

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

(a) Describe with a diagram the working of negative let-off motion.

(b) Explain with diagrams, the different types of shed formed on weaving machine. State its merits and demerits.

(c) A loom is running at 240 rpm with 75% efficiency and producing a fabric having 48 picks/inch. Calculate the production of loom per day in yards.
