

22462

12425

3 Hours / 70 Marks

Seat No.

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

Marks

1. Attempt any FIVE of the following :

10

- (a) State the objects of Pirn Winding.
- (b) Sketch the different types of pirn.
- (c) Enlist the different types of shed formed on a loom.
- (d) Give the cause and remedy for any one pirn defect.
- (e) State the function of temples.
- (f) List the requirements of pirn for automatic loom.
- (g) Enlist the machine defects.

2. Attempt any THREE of the following :

12

- (a) Draw the drive to crank shaft and bottom shaft. Determine the speed of bottom shaft if the crank shaft is rotating at 120 rpm.



- (b) (i) Define : Stockport Reed Count
- (ii) Calculate the number of ends/inch in a reed of 2/80, stockport.
- (c) Enlist the different types of heald wires. State the merits and demerits of flat steel heald wires.
- (d) State the function of following parts in over pick mechanism :
 - (i) Picking tappet
 - (ii) Picker
 - (iii) Buffer
 - (iv) Shuttle box

3. Attempt any THREE of the following :

12

- (a) Explain any four aspects considered for achieving perfect build of pirn.
- (b) State the functions of :
 - (i) Oscillating backrest
 - (ii) Take-up motion
- (c) (i) Define the terms :
 - (a) Draft
 - (b) Peg-plan
- (ii) Draw the skip draft for 2/2 Twill weave. Explain the importance of skip draft.
- (d) Draw a labelled diagram of tappet shedding mechanism.

4. Attempt any THREE of the following :

12

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

- (b) Draw the loom timing diagram for all the primary motions.
- (c) Define the term : Sley eccentricity. List the factors affecting sley eccentricity.
- (d) State the merits and demerits of :
 - (i) Side weft fork mechanism
 - (ii) Centre weft fork mechanism
- (e) State one function of
 - (i) Heald shaft
 - (ii) Back rest
 - (iii) Shuttle
 - (iv) Reed

5. Attempt any TWO of the following :

12

- (a) Explain the following fabric defects. Also state the causes and remedies of the same.
 - (i) Missing end
 - (ii) Starting marks
- (b) State the causes and remedies for following woven fabric defects :
 - (i) Snarl
 - (ii) Lashing-in
 - (iii) Weftbar
- (c) Calculate the weight of warp and weft in a fabric having following particulars :
 - (i) Ends/inch = 80
 - (ii) Picks/inch = 68
 - (iii) Warp count = 60s Ne

- (iv) Weft count = 54s Ne
- (v) Fabric length = 1000 yds
- (vi) Fabric width = 54"
- (vii) Warp crimp = 4%
- (viii) Weft crimp = 6%

6. Attempt any TWO of the following :

12

- (a) Explain the working of negative let-off motion with a neat labelled diagram.
 - (b) Describe with a labelled sketch the passage of warp on a plain power loom.
 - (c) Determine the fabric produced in meters/shift for a loom running at 350 rpm with 82% efficiency and producing a fabric having 220 picks/inch.
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