

17225

21819

3 Hours / 100 Marks

Seat No.

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- 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.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
 - (7) Use of steam tables, logarithmic, Mollier's chart is permitted.

Marks

- 1. Attempt any FIVE of the following: **20****
- a) Explain any one pin defect and suggest remedies.
 - b) Define:
 - (i) Metric count
 - (ii) Tex
 - c) Write the functions of:
 - (i) Crank shaft
 - (ii) Picker
 - (iii) Healds
 - (iv) Sley.

P.T.O.

- d) State the objects of:
 - (i) Take up motion.
 - (ii) Let- off motion.
- e) Compare fast reed motion and loose reed motion.
- f) Draw neat sketch of non-automatic loom shuttle. State functions of different parts of shuttle.
- g) Write causes and remedies for temple marks in fabric.
- h) Calculate fabric weight in gms/m^2 with the following particular:
 - (i) Ends/inch = 60
 - (ii) Picks/inch = 70
 - (iii) Warp count = 30^s
 - (iv) Weft count = 40^s
 - (v) Warp crimp% = 4%
 - (vi) Weft crimp% = 5%

2. Attempt any FOUR of the following:

16

- a) Explain with neat sketch working of non-automatic pirn winding machine.
- b) Find resultant count of $2/20^s$, $2/30^s$, $2/36^s$ English cotton count.
- c) State the types of shedding mechanism. Also compare positive shedding and negative shedding.
- d) Explain with neat sketch seven wheel take up motion.
- e) Draw neat sketch of shuttle box and write functions of all parts.
- f) Explain care during use and storage of buffer and picking band.

3. Attempt any TWO of the following:**16**

- a) Give the causes and remedies for following defects:
- (i) Float.
 - (ii) Stains.
- b) Calculate the average loom speed, average PPI and average Reed width from the following data:

No. of Looms	Loom speed (rpm)	PPI	Reed width (in inches)
50	200	60	48"
100	180	54	60"
150	220	44	40"
200	170	84	64"

- c) Explain with neat sketch working of negative tapper shedding motion and write functions of all parts.

4. Attempt any TWO of the following:**16**

- a) Explain demerits of negative let off motion. And describe working of negative let-off motion with neat sketch.
- b) Explain with neat sketch working of fast reed motion and write functions of all parts.
- c) State the objects of picking. Describe construction and working of side lever under pick mechanism with neat sketch.

5. Attempt any TWO of the following:**16**

- a) Explain with neat sketch Beat-up motion.
- b) (i) Explain with neat sketch various types of temple rollers.
(ii) Explain with neat sketch brake motion on loom.
- c) (i) Explain Indirect and direct yarn numbering system.
(ii) Convert following English counts into its equivalent metric and French counts:
 - 1) 30's
 - 2) 50's

6. Attempt any FOUR of the following:**16**

- a) Compare automatic pirn and non-automatic pirn winding.
 - b) Draw loom timing diagram for primary and secondary motion.
 - c) Explain case for metal reed during use and storage.
 - d) Calculate loom production/ day in meters from following data
 - (i) Loom speed = 210 rpm
 - (ii) PPI-80
 - (iii) Loom Efficiency = 88%
 - e) Write short note on Build of pirn.
 - f) Calculate total ends in a cloth width of 100 cm Reed of 44^s Stockport, drawing 2 threads/dent.
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