

22677

23124

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.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

10

- (a) List the causes of low productivity at warping.
- (b) Explain the importance of controlling hard waste in weaving department.
- (c) Explain selection, care and storage of shuttle.
- (d) Explain causes and remedies for curled and folded selvedge.
- (e) Suggest the key parameter that affects quality.
- (f) Explain causes and remedies for any two winding package defects.
- (g) Explain importance of maintaining moisture in sizing beam.



- 2. Attempt any THREE of the following : 12**
- (a) Explain scope and approach to process control in weaving.
 - (b) Elaborate following terms and state their importance :
 - (i) Retained Splice Strength
 - (ii) Splice Breaking Ratio
 - (iii) Splice Appearance Grade
 - (c) Explain scope of process control in warping department.
 - (d) Explain approach of process control in sizing.
- 3. Attempt any THREE of the following : 12**
- (a) Suggest and explain the parameters to be considered for deciding quality of pirn.
 - (b) Explain features of a good quality warping beam.
 - (c) Explain measures taken to control in stretch in creel and saw box zone in sizing machine.
 - (d) Explain various factors affecting loom efficiency.
- 4. Attempt any THREE of the following : 12**
- (a) Explain factors affecting cost of production and productivity in weaving process control.
 - (b) Describe the factor for minimising end breaks in weaving department.
 - (c) Explain any two additional elements used on sizing machine to improve weavability of yarn.
 - (d) Explain the scope and approach of process control in loom shed.

- (e) Calculate the penalty points for 1200 meter shirting fabric of 60 inches width for following defects with four point system :

06 defects upto 76 mm

10 defects between 76 – 152 mm

03 defects between 152 – 228 mm

03 defects over 228 mm

03 holes less than 76 sq. mm

03 holes over 250 sq. cm.

5. Attempt any TWO of the following :

12

- (a) Explain causes and remedies for any three winding defects.
- (b) Suggest the sizing ingredients to size 60^S Ne combed cotton yarn for medium density fabric.
- (c) Calculate warping machine efficiency with following particulars,

Warping speed = 600 mpm

Set length = 20,000 meter

Yarn length on package = 112000 meter

Number of ends per beam = 500

End breaks per 400 ends/1000 meter = 4

Time to mend a warp break = 30 sec

Time to change a beam = 8 min

Creeling Time = 50 min

Time loss due to miscellaneous causes per 1000 meter = 20 sec.

P.T.O.

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

- (a) Explain the importance of control of dead loss in sizing and method to calculate it.
- (b) Explain the concept of optimum loom allocation.
- (c) Calculate number of rounds required to take snap study if there are 600 machines in a shed at 95% confidence level. The expected efficiency to be taken as 90%.

Taking following data calculate snap efficiency :

End breaks and warp faults = 39

Mending float = 2

Shuttle changes = 26

Weft Break = 3

Oiling and cleaning = 3

Beam Gaiting = 6

Beam Doffing = 6

Cloth roller doffing = 3

Weaver away = 2

Miscellaneous = 2
