

17225

11920

3 Hours / 100 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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any TEN of the following: 20
- What are the objects of Pirn winding machine?
 - Enlist the features of modern Pirn winding machine.
 - What are the different yarn numbering systems?
 - List various types of shedding mechanisms.
 - Write objects of picking.
 - What are the advantages of +ve left-off motion?
 - Enlist various take-up mechanisms used on power loom.
 - Draw diagram of shuttle box and name each part.
 - Why oscillating back rest and lease rods are used on power loom?
 - What care is needed for storing healds and reeds?
 - What is the function of check strap?

P.T.O.

- l) List any four commonly occurring fabric defects.
- m) What will be the number of ends/inch in a reed of $3/80^s$ stock post reed?
- n) State the formula used to calculate fabric weight in gms/m^2 .
- o) Give causes of crack.
- 2. Attempt any TWO of the following: 16**
- a) Explain construction and working of modern auto pirn winding machine with a neat sketch.
- b) Draw a semi-positive let-off motion and label the parts.
- c) Calculate the length in meters of yarn on a cheese of 80^s combed yarn weighing 1 kg.
- 3. Attempt any TWO of the following: 16**
- a) Convert 40^s , 60^s , 80^s and 100^s Ne to Tex and denier.
- b) Describe passage of warp through plain under pick powerloom with a neat sketch.
- c) List the secondary motions of a powerloom and explain the working of over pick mechanism with the help of a neat sketch.
- 4. Attempt any TWO of the following: 16**
- a) With the help of a neat diagram, explain seven wheel intermittent take-up motion. Derive formula for pick constant.
- b) What is the objective of let-off motion? What are the disadvantages of -ve let-off?
- c) Compare loose reed and fast reed mechanism.

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

- a) Describe construction and working of side weft fork motion with a neat sketch.
- b) (i) Draw loom brake mechanism and label the parts.
(ii) State the functions and types of warp protector on a loom
- c) What care is to be taken while using and storing the following loom accessories?
 - (i) Picker
 - (ii) Reed
 - (iii) Heald
 - (iv) Shuttle

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

- a) Calculate production / day in meters from following particular.
 - (i) Loom speed – 180 rpm
 - (ii) PPI – 60
 - (iii) Efficiency – 95%
 - b) What is the weight in gm/m² of a fabric having following particulars.
Ends/inch – 60, Pick/inch - 60, Count of warp - 30^s, Count of weft-24^s, Warp crimp – 6%, Weft-crimp – 5%.
 - c) A beam has 4000 ends. Calculate reed required for 46" loom width, 4 threads per dent as drawing in order.
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