

17225

15162

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

Marks

1. Attempt any TEN of the following:

20

- Define English count with formulae.
- What is the object of let-off motion.
- What is the object of picking motion? Enlist types of picking mechanism.
- Enlist various fabric defects.
- What is the function of warp protector motion.
- What is the function of the picker?
- State the objectives of pirn winding.
- Enlist various secondary motions.
- What is the role of healds in loom?
- Explain about temple marks.
- What is the function of lease rods.
- Define denier system with formulae.

P.T.O.

- m) What do you mean by eccentricity of sley?
- n) State the formula used to calculate fabric weight in gms/m^2 .

2. Attempt any TWO of the following: 16

- a) What is count? What are different yarn numbering system? Explain them with suitable example.
- b) Explain construction and working of cone over pick mechanism with neat sketch.
- c) Explain five wheel take up mechanism with neat sketch.

3. Attempt any TWO of the following: 16

- a) Describe the passage of warp through loom with neat labelled sketch.
- b) Describe tappet shedding mechanism with neat sketch.
- c) Give causes and remedies for following defects:
 - (i) Shuttle smash
 - (ii) Crack

4. Attempt any TWO of the following: 16

- a) Describe passage of yarn through pirn winding machine with neat sketch
- b) (i) Convert 30^s , 40^s and 60^s to tex and denier.
(ii) Find the resultant count of 10^s , $2/20^s$, $2/40^s$ and $4/40^s$ Ne.
- c) Describe construction and working of beat mechanism with neat sketch.

5. Attempt any TWO of the following: 16

- a) Describe construction and working of side weft fork motion with neat sketch.
- b) Differentiate between loose reed and fast reed motion.
- c) Calculate the time required to complete a weaver's beam having 1000 yds. of warp on it. The woven cloth is required to have 50 picks/inch. The up-take of warp is weaving is 7% and waste may be taken as 7 yds. The loom is running at 300 rpm and efficiency is 85%.

6. Attempt any TWO of the following: 16

- a) Explain the function and care during use and storage of following loom accessories:
 - (i) shuttle
 - (ii) picker
 - (iii) reed
 - (iv) buffer
 - b) Describe working of oscillating of back rest with neat sketch.
 - c) (i) Calculate production one day in meters from following particulars:
 - 1) Loom speed = 180 rmp
 - 2) PPI = 60
 - 3) Efficiency = 85%
 - (ii) What is the weight in gms/m² of a fabric having following particulars:
 - Ends/cm → 22 picks/cm = 24
 - Count warp → 20^s Count weft → 20^s
 - Crimp → 5% Crimp weft = 6%
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