

Note: Answer any Five full questions

1. a) Explain the necessity of draw frame in spinning.
- b) With the neat line diagram, explain the passage of material through any one draw frame.
- c) Explain the importance of auto leveler in draw frame. Give the CI%,CV% of autolevelled draw frame sliver suitable for international quality.
2. a) Define break draft and state its importance.
- b) Find the linear density of sliver delivered in draw frame from the following particulars Production kgs/8hrs
Shift at 95% efficiency = 1200kgs
For 2 deliveries
Delivery speed – 300 m/min. -10-
c) Explain the terms Bercolisation, Buffing and shore hardness and write the importance of these processes.
- . a) Name the combination of preparatory machines used for combing and explain any one combination with neat diagrams.
- b) How many passages are required between card and comber and card and king frame? Explain with reason.
- c) Explain the term fractionating efficiency and how do you determine the same.
2. a) With the help of sketches, explain one complete cycle of combing.
- b) Explain the working of aspiratory system.
- c) State the importance of index wheel in comber.
5. a) Define Detachment setting and state its importance.
- b) Find the production of comber in kgs/ 8 hrs shift at 80% efficiency from the following particulars.
Length fed/nip = 6mm
Cylinder speed = 300 nips/min
Lap feed = 40 gms/ metre
Waste – 12%
No. of heads
c) State the latest developments in comber with reference of clamping distance, cylinder speed etc,
6. a) Explain the principle of twisting in speed frame and give the normal twist given
- b) Explain any one modern drafting system adopted on speed frame with the help of neat sketch.
- c) What do you mean by player and bobbin leading mechanism? Which is popular and why?

7. a) Explain the objects and working of differential gear mechanism in speed frame With a neat diagram.

b) How do you determine the hank of roving? Give Hank of roving from coarser to finer varieties in both direct and indirect systems.

c) Find the linear density of the roving delivered on speed frame if the delivery speed is 15 m/min and production per spindle per 8 hrs shift at 80% efficiency is 2 kgs/ spindle.

8. Write note on the following

i) Breaker and finisher sliver

ii) Degrees of combing

iii) Nose bar, cardle, Aprons

iv) Hook theory

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