

CBCS SCHEME

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Third Semester B.Tech. Degree Examination, Dec.2019/Jan.2020 Spinning Technology - I

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is ginning? With neat figure explain the working of saw gin. (12 Marks)
b. Explain the process of cotton grading. (08 Marks)

OR

- 2 a. What is mixing and blending? With neat figure explain the working of Aerodynamic beater. (12 Marks)
b. Comment on blend consistency. (08 Marks)

Module-2

- 3 a. What are the objects of Blowroom? Explain the passage of material through ERM cleaner. (12 Marks)
b. 1km yarn weighs 50gm. What is the tex, denier and equivalent count in English count? (08 Marks)

OR

- 4 a. A scutcher produces a lap in 4.2 min. If the lap weight is 18kgs and lap roller diameter is 25cm, find the speed at lap roller and the production per shift at 82% efficiency, when hank at lap is 0.0014 n/e. (12 Marks)
b. Explain the principle of piano feed regulating mechanism. (08 Marks)

Module-3

- 5 a. What are the objects of carding? Explain the passage of material through revolving flat card. (12 Marks)
b. Stating objects of grinding and stripping, explain the different types of setting in card. (08 Marks)

OR

- 6 a. Calculate the production of a card/hr if the draft between the laproller and doffer is 90. The draft between the doffer and the calendar roller is 1.02. Draft between the calendar roller and coiled calendar roller is 1.05. Hank of lap is 0.00146. Waste removed during carding amounts to be 4%. The 27" diameter doffer is running at 12rpm with an efficiency of 90%. (12 Marks)
b. Enlist the gauges used in card. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

Module-4

- 7 a. With neat sketches discuss the different types of drafting systems used in Draw frame. (12 Marks)
b. What are Auto levelers and explain the different types of it? (08 Marks)

OR

- 8 a. Surface speed of back roller of an ordinary draw frame is 20ft/min. Six slivers each of 50grs/yd are fed. What will be the production/shift of 8hrs, if the bank delivered is same. (12 Marks)
b. What is bercolisation, scouring, buffing and shore hardness? (08 Marks)

Module-5

- 9 a. Why combing preparatory process is required? Substantiate your answer with Hooks theory. (12 Marks)
b. Explain the combing cycle with the help of index numbers. (08 Marks)

OR

- 10 a. Find the production per shift of 8 hrs of sliver lap machine when its lap roller of 12" diameter runs at 50rpm to produce a lap of 400grs/yd with 80% efficiency. If the length of lap on each spool is 120 yds, find both the weight of the material on each spool and time to complete one spool. (12 Marks)
b. Explain the parameters which affects or alters the Noil% in comber. (08 Marks)

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