Sub Code:KTT301

Paper Id: 161321 Roll No:

B. TECH
(SEM-III) THEORY EXAMINATION 2019-20
YARN MANUFACTURE-I

Time: 3 Hours ***Total Marks: 100***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 10 = 20

Q no.	Question	Marks
a.	What is ginning process?	2
b.	What do you understand by trash?	2
c.	What is fiber blending?	2
d.	What is fiber Contamination?	2
e.	What are the essential fiber properties for yarn manufacturing?	2
f.	Why nep is generated in blow-room?	2
g.	What is the use of grid bars under the beaters?	2
h.	What is stripping action in carding process?	2
i.	What is short nose feed device in carding machine?	2
j.	What is function of doffer in carding process?	2

SECTION B

2. Attempt any *three* of the following: 3 x 10 = 30

Q no.	Question	Marks
a.	What do you understand by fiber impurity? Which type of impurities in cotton fiber exists? Explain briefly.	10
b.	Write the objectives of Ginning. Explain the working of Saw Gin /Roller Gin with neat labeled diagram.	10
c.	Explain the principle and working of Mixing Bale Opener.	10
d.	What are the objectives of carding process? Explain in brief the flow of material in carding process with neat labeled diagram.	10
e.	Discuss the use of the flexible and metallic card clothing for processing of different types of cotton.	10

SECTION C

3. Attempt any *one* part of the following: 1 x 10 = 10

Q no.	Question	Marks
a.	Why grinding of wires are required? Describe the working of any one type of grinder with neat sketch.	10
b.	Explain the importance of Metal Extractor in a cotton blow room line. Describe briefly the working of Metal Extractor.	10

4. Attempt any *one* part of the following: 1 x 10 = 10

Q no.	Question	Marks
a.	Discuss about the latest developments in the blow-room machines and their benefits to the textile industry.	10
b.	What is the need of Bypass arrangement in a cotton blow room line? Explain the working of Bypass arrangement.	10

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5. Attempt any *one* part of the following: 1 x 10 = 10

Q no.	Question	Marks
a.	Write the sequence of machines for carded and combed yarn manufacturing process. Compare the physical properties of combed and carded yarns.	10
b.	Explain the sequence of machine in modern blow-room line along with their features.	10

6. Attempt any *one* part of the following: 1 x 10 = 10

Q no.	Question	Marks
a.	Explain the cause and effect of high level of Nep generation in blow room department.	10
b.	Describe lap formation in blow-room line with neat sketch.	10

7. Attempt any *one* part of the following: 1 x 10 = 10

Q no.	Question	Marks
a.	If there is 1.0% trash in final lap and cleaning efficiency of blow room line is observed as 68%, calculate the trash present in the raw cotton.	10
b.	Explain briefly about the various defects in Blow-room laps.	10

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