(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 2289820 Roll No.

B.TECH.

Regular Theory Examination (Odd Sem - V) 2016-17

YARN MANUFACTURE-III

Time : 3 Hours *Max. Marks : 100*

SECTION - A

1. Attempt all questions. **(10×2=20)**

a) What is the general configuration of fibres in card sliver?

b) What is the role of needles/teeth on combing cylinder?

c) What is the role of top comb?

d) How the comber noil is stripped from circular comb?

e) Name three most important comber setting that have significant influence on comber noil.

f) What is the drafting range and loading on inter frame?

g) On what factors roving twist depends?

h) What is the role of cradle in speed frame?

i) What are the merits of pendulum arm in roving frame?

j) Does changing of break draft change wheel influences the production of roving frame?

SECTION - B

2. Attempt any five parts and each part carry ten marks. **(5×10=50)**

a) What are objectives of combing? Also describe the sequence of operation in a rectilinear comber.

b) Discuss the causes of poor combing efficiency, lap running slack, poor nep removal efficiency in combers.

c) Describe the automation in combing.

d) Describe the conventional process of converting sliver to roving.

e) Discuss the various types of drafting system used in roving process.

f) What changes are required in roving frame if count of roving produced is to be changed?

g) Discuss the influence of roving twist, roving tension, size of condenser and spacer size on roving quality.

h) The linear density of lap feed is 55 g/meter. The net forward movement of the detaching roller per cycle is 30mm. The feed length per cycle is 5.5mm. Slivers from 4 combing heads are combined and a draft of 9.6 is given. The resultant combed sliver count is 0.16 Ne. What % of feed is extracted as noil?

SECTION - C

Note: Attempt any two questions and each question carry 15 marks. (2×15=30)

3 Explain the combing cycle and working of different parts at different phases of combing cycle.

4. How does the material preparation affect combing?

5. Discuss the function and working of apron, spacer, cradle, top arm, and nose bar & flyer.