

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE SEM-III Examination May 2012****Subject code: 132902****Subject Name: Yarn Manufacturing - I****Date: 11/05/2012****Time: 02.30 pm – 05.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Why card clothing requires stripping operation? **07**  
Hence explain vacuum stripper with neat sketch.
- (b) With a neat sketch describe construction and working of Saw gin. **07**
- Q.2** (a) Calculate draft and production in Kg./shift from the following data: **07**  
Hank of lap – 0.0014  
Hank of sliver – 0.14  
Waste % in carding machine – 5%  
Diameter of doffer – 27 inches  
Speed of doffer - 8 RPM  
Working time – 8 hours  
Efficiency – 90%
- (b) What is card setting? Discuss the factors affecting the card setting and its importance. **07**
- OR**
- (b) Describe construction and working of any one Automatic Bale opener with suitable sketch. **07**
- Q.3** (a) What is the need of Chute feed system? **07**  
Explain classification of Chute feed system.
- (b) Describe construction and working of Step cleaner with neat sketch. **07**
- OR**
- Q.3** (a) What is Autoleveller? **07**  
Explain RRC card Autoleveller with neat sketch.
- (b) Describe construction and working of any machine in which air current is used for cleaning and Transportation of material **07**
- Q.4** (a) How precarding action is improved in high production card? Explain any two modifications in Licker in region with neat sketch. **07**
- (b) What is Mixing? **07**  
Discuss the objects of Mixing.  
Only Draw diagram of any one mixing machine.
- OR**
- Q.4** (a) What are the limitations of doffing by doffer comb? Hence explain any two modifications in web doffing system with neat sketch. **07**
- (b) Discuss the points to be considered while processing Manmade fibers on Blow room line. **07**
- Q.5** (a) Discuss advantages and disadvantages of long roller grinder and traverse grinder. **07**

(b) Discuss the important features of Piano feed Mechanism with suitable sketch. **07**

**OR**

**Q.5** (a) Explain metallic card clothing in detail. **07**

(b) Discuss briefly various points for maintenance of Blow room **07**

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