

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV (New) EXAMINATION – WINTER 2015

Subject Code:2142901**Date:30/12/2015****Subject Name: Yarn Manufacturing II****Time: 2:30pm to 5:00pm****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) What are flyer lead and bobbin lead machines in speed frame? Discuss their advantages and disadvantages. **07**
 (b) How breaker draw frame is different from finisher draw frame? Explain. **07**
- Q.2** (a) With neat sketch, explain various types of gauges used for carrying out settings of comber. **07**
 (b) State the objective of Draw frame and discuss how they are accomplished. **07**
- OR**
- (b) Describe various types drafting system arrangement at draw frame. **07**
- Q.3** (a) Explain working of open and close loop autoleveller of draw frame. **07**
 (b) Describe the suction systems in the drafting arrangement of draw frame. **07**
- OR**
- Q.3** (a) Describe the following terms: 1. Drafting wave 2. Stick- slip phenomenon **07**
 (b) Discuss various types of roller weighing system of drafting section at draw frame. **07**
- Q.4** (a) What is differential motion? Explain use of differential motion on speed frame. **10**
 (b) Discuss the Objects of Speed frame. **04**
- OR**
- Q.4** Show passage for conversion of sliver into roving form. Explain flyer and flyer assembly at speed frame. Also mention latest developments of speed frame. **14**
- Q.5** (a) Calculate total draft and Production in Kg/spindle/day of speed frame with following data: Flyer speed = 1500 rpm, Sliver hank = 0.16, Roving hank = 1.50, T.M. = 1.2, Efficiency = 87 % **07**
 (b) Define trailing and leading hook. Discuss importance of trailing and leading hooks in preparation of comber lap. **07**
- OR**
- Q.5** (a) Calculate production of 10 combers in Kgs /day from the following data. **07**
 Feed/nip- 0.30", Comber lap weight- 15 Kg, Nips/min- 291, Comber lap length- 250 m, Efficiency- 89%, Noil - 12%
- (b) With neat sketch explain forward feed and backward feed in comber. **07**
