

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – WINTER • 2014****Subject Code: 142901****Date: 22-12-2014****Subject Name: Yarn Manufacturing- II****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) Enlist the objects of draw frame and explain importance of doubling and drafting in spinning process **07**
- (b) Explain in brief, importance of trailing and leading hooks in preparation of comber lap. **07**
- Q.2** (a) Discuss the Objects of Speed frame and show passage for conversion of sliver into roving form. **07**
- (b) Explain different parameters influencing combing operation. **07**
- OR**
- (b) How twisting and winding of roving are carried out on speed frame machine, explain with suitable diagram. **07**
- Q.3** (a) Enlist the merits and demerits of dead weight, spring and pneumatic loading arrangement in draw frame drafting system. **07**
- (b) With diagram, Explain ideal and actual drafting with its functions. **07**
- OR**
- Q.3** (a) Discuss briefly the problems of (I) drafting wave and (II) roller nip movement. **07**
- (b) With diagram, explain working principle of open loop system used on draw frame machine with its importance. **07**
- Q.4** (a) Discuss in brief noil theory of Gegauff for forward feed and backward feed of comber. **07**
- (b) With neat sketch, explain Super lap machine. **07**
- OR**
- Q.4** (a) Explain with neat sketch arrangement of bobbin, flyer and flyer assembly. **07**
- (b) What are flyer lead and bobbin lead machines in speed frame? Discuss their advantages and disadvantages. **07**
- Q.5** (a) For comber, explain - I) Nipper Assembly & II) The Cylinder combs **07**
- (b) Write short note on the modern developments in Comber. **07**
- OR**
- Q.5** (a) State the objects of Builder motion and explain, how to achieve these on speed Frame. **07**
- (b) Following data refers to speed frame: Flyer speed = 1200 rpm, Sliver hank = 0.17, Roving hank = 1.65, T.M. = 1.2, Efficiency = 82 % **07**
Find total draft and Production in Kg/shift/spindle.
