

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2142901

Date:17/05/2019

Subject Name: Yarn Manufacturing - II

Time:02:30 PM TO 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.

	MARKS
Q.1 (a) State the basic objects of Draw frame.	03
(b) Describe the construction of modern top rollers used on Draw frame.	04
(c) Explain the ideal theory of drafting with suitable sketch. Can ideal drafting be achieved in practice ? Why?	07
Q.2 (a) Describe various types of flutes used on bottom roller with sketch.	03
(b) Write a short note on auto levellers and its need at draw frame.	04
(c) Discuss the problem of roller eccentricity and roller nip movement at draw frame.	07
OR	
(c) Describe features of modern Draw frames in detail.	07
Q.3 (a) Describe function of Ribbon lap machine briefly.	03
(b) Briefly discuss points to be considered while processing of manmade fibres on draw frame.	04
(c) Describe super lap former with neat sketch.	07
OR	
Q.3 (a) Discuss the objects of comber.	03
(b) State the importance of coiling mechanism. Hence describe short centre and around centre coiling briefly.	04
(c) Discuss the effect of lap preparation on performance of comber and noil percentage in detail.	07
Q.4 (a) Discuss how comber helps to remove hooks briefly.	03
(b) Calculate production of comber from following data : <ul style="list-style-type: none">• Feed/nip - 8 mm• Nips/min - 350• Efficiency - 85%• Noil % - 10• Hank of lap fed - 0.014	04
(c) Describe complete combing cycle with suitable sketches.	07
OR	
Q.4 (a) Describe function of following parts at Comber: (i) Nipper assembly (ii) Web Pan	03
(b) Describe modern developments in comber.	04
(c) Derive equation to calculate noil % for backward feed comber.	07
Q.5 (a) Discuss the importance of twist and its optimization at speed frame.	03
(b) Discuss developments in drafting system at speed frame briefly.	04
(c) Briefly describe : (i) Differential and its function at speed frame (ii) Construction of flyer	07

OR

- Q.5** (a) Compare flyer lead and bobbin lead machines. **03**
(b) Discuss the objects of builder motion on Speed frame. **04**
(c) Describe construction and working of English builder with suitable sketch. **07**
