Cook No.	England No
Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III(New) EXAMINATION - SUMMER 2016

Subject Code:2132902 Date:27/05/2016

Subject Name: Yarn Manufacturing-I

Time:10:30 AM to 01:00 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		Short Questions	14
	1	Saw ginning is for long staple lint True or False?	1
	2	What is a popular term used for cotton?	1
	3	What is cotton fiber called after separated from the seed?	1
	4	cotton is a cotton variety genetically altered by the addition of genetic material (DNA) from another variety.	1
	5	Which type of cross section shape of grid bar used in blowroom?	1
	6	Give the classification of different types of ginning machine.	1
	7	In tandem card, doffer of the first card feed the material to the	1
	8	Defined – "Neps".	1
	9	Rotating direction of taker-in roller in card	1
	10	Card clothing is classified into how many categories?	1
	11	Between which rollers the formations of hook in the fibre take place?	1
	12	In a card, the wire point density is maximum on which part?	1
	13	In a card, the point-to-point action results in carding action on the fibres. However, the back-to-back action results in	1
	14	On a carding machine Doffer wire point height is less than that of cylinder.	1
		True or False?	
Q.2	(a)	Calculate cleaning efficiency of blow room from the following: Trash % in bale cotton = 5.5 , Trash % in lap = 2.2	03
	(b)	With suitable labelling, show passage of material in "Saw Gin".	04
	(c)	Explain working principle of krishner beater.	07
		OR	
	(c)	Explain lap formation mechanism of scutcher with diagram.	07
Q.3	(a)	Discuss in brief about history of ginning.	03
	(b)	Discuss in brief about Baling and Packing of cotton in Ginning.	04
	(c)	Explain Knife roller gin with suitable diagram.	07
		OR	
Q.3	(a)	Explain objects of blow room.	03
	(b)	Mentions the factors in which intensity of opening depend.	04
	(c)	Explain construction and working of step cleaner with diagram.	07
Q.4	(a)	Mention the associated or auxiliary equipments used in modern blow room	03
		line.	
	(b)	Explain piano feed mechanism of blow room with diagram.	04
	(c)	With a neat sketch explain construction and working of Hopper Bale	07
		Opener.	
		OR	
Q.4	(a)	Briefly explain objects of card.	03
	(b)	Write the formula to calculate the production of card in kgs/shift. Also Write the formula to calculate mechanical draft on card.	04

	(c)	Explain carding and stripping action of card with suitable diagram.	07
Q.5	(a)	Discuss advantages and disadvantages of chute feed system over lap	03
		feeding system on card.	
	(b)	Draw Tandem card and mention its advantages and disadvantages.	04
	(c)	Write short note on "Card Setting".	07
		OR	
Q.5	(a)	Explain flexible card clothing in brief.	03
	(b)	Explain recent development at feed roller and licker in roller of card with suitable diagram.	04
	(c)	What is importance of grinding for card clothing? Hence explain any one type of grinding roller with neat sketch.	07
