GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V(New) • EXAMINATION - WINTER 2016

Subject Code:2152907 Date:30/11/2016

Subject Name:Man Made Fibre Technology

Time:10:30 AM to 01:00 PM

Instructions:

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

	0.1		Short Overthee	
	Q.1	1	Short Questions State any two advantages of introducing microgrooves in polyester filaments.	14
		2	Only name the methods used for Tow - to -Top convertor.	
		3	Is it correct to state that Nylon 6,6 has higher melting point than Nylon 6?	
		4	What is the effect of drawing of synthetic filaments on its crystallinity?	
		5 6 7 8	Which fibre is widely used in bullet proof jackets? The polyamide fibre is commonly known as fibre is lightest and can float on water. The specific gravity of glass fibre is	
		9	is a melamine based resin fibre.	
		10	fibre is found to be carcinogenic and now banned is most of the countries.	
		11 12	is a para aramid texturising machine produces yarn with entagled loops.	
		13 14	The temperature of primary heater is around for polyester on False twist texturising machine discs have least life on False Twist texturising machine.	
	Q.2	(a)	Describe nozzle used for airjet spinning briefly.	03
		(b)	Give complete classification of manmade fibres.	04
		(c)	Discuss briefly about properties and role of spin finish. OR	07
		(c)	What is heat setting? why it is carried out? Hence describe temporary sett and permanent sett.	07
	Q.3	(a)	Explain in brief about molecular orientation in fibre.	03
		(b)	Explain in brief about Tow - to Top Converter with sketch.	04
		(c)	Explain polyester yarns with microgroves, micro voids and microcraters.	07
	0.2	(-)	OR	
	Q.3	(a)	Describe briefly about super absorbent fibre.	03
		(D)	Explain super micro filament yarn by conjugated	04

Total Marks: 70

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		2.5	bicomponent yarn spinning.	
*		(c)	Write a short note on flame retardant yarn.	07
	Q.4	(a)	State the important properties of Nomex fibre.	03
		(b)	State important properties of Carbon fibre and hence state its important applications.	04
		(c)	With a neat flow chart, discuss the manufacturing of Nylon tyre cord.	07
			OR	
	Q.4	(a)	State the important properties and application of Kynol fibres.	03
		(b)	Write a short note on metal fibres.	04
		(c)	Describe the manufacturing of glass fibre and state their	07
			important applications.	
	Q.5	(a)	Discuss the objects of Texturising.	03
		(b)	Describe Knit - de - knit method of Texturising briefly.	04
		(c)	Describe False Twist Texturising process with neat sketch.	07
			OR	
	Q.5	(a)	Describe gear crimping method briefly.	03
		(b)	Write a short note on Solvent Texturising.	04
		(c)	Describe the process of Air jet texturising with neat sketch.	07