Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–III (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2132901 **Date: 31/05/2017**

Subject Name: Textile Fibres

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.**

			MARKS
Q.1		**Short Questions**	**14**
	1	Name any two seed fibre.	1
	2	_____ fibre is known as artificial wool fibre.	1
	3	Moisture regain value of silk fibre is _____.	1
	4	_____ fibre possesses convolutions.	1
	5	The _____ natural fibre is known as aristocrat fibre.	1
	6	Properly carded and combed wool fibres are known as _____ wool.	1
	7	The fibre which has triangular cross section is _____.	1
	8	Signify 'Deaeration step' in synthetic fibre production.	1
	9	Absorbancy is attributed to _____ region of fibre polymer.	1
	10	Differentiate between PET and polyester fibres.	1
	11	The solvent for viscose rayon is _____.	1
	12	Orientation to synthetic fibres is imparted in _____ during manufacturing.	1
	13	Name any two polyolefin fibres.	1
	14	Polyvinyl chloride fibres are better known as _____ fibres.	1
Q.2	**(a)**	Give the technical aspects involved in xanthation step.	**03**
	(b)	State various physical properties of cotton fibres.	**04**
	(c)	Discuss the growth, cultivation and extraction of Jute fibres.	**07**
		OR	
	(c)	Discuss the detailed manufacturing process of PAN fibres.	**07**
Q.3	**(a)**	Describe the step involved to convert triacetate fibre to diacetate fibre.	**03**
	(b)	Describe the drawing process of nylon fibres.	**04**
	(c)	State the detailed process to manufacture PET chips.	**07**
		OR	
Q.3	**(a)**	Write a short note on tacticity of PP.	**03**
	(b)	Depict on melt spinning technique to extract fibre.	**04**
	(c)	Describe the detailed manufacturing process of bemberg fibre.	**07**
Q.4	**(a)**	State some important details of asbestos fibres.	**03**
	(b)	Write few words on 'spun silk'.	**04**
	(c)	Describe various chemical and physical properties of silk fibre with explanation.	**07**
		OR	

Q.4	**(a)**	Give the details for growth of cotton fibres.	**03**
	(b)	Discuss in detail about manufacturing of coir fibres.	**04**
	(c)	Explain morphological structure of wool fibre with a neat sketch.	**07**
Q.5	**(a)**	Give the polymerization process Nylon 6 6 fibre.	**03**
	(b)	Write a short note on casein fibres.	**04**
	(c)	Enlist various physical, chemical, mechanical and thermal properties of wool fibre.	**07**

OR

Q.5	**(a)**	Explain the significance of higher melting point for polymer to be fibre.	**03**
	(b)	Write a short note on sericulture.	**04**
	(c)	Enlist various physical, chemical, mechanical and thermal properties of viscose rayon.	**07**

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