Seat No.:	Enrolment No
	GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Code:2152807 Date:22/11/2016

Subject Name:Processing & Applications of Non conventional 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		Attempt the following objective questions.	14
C	1	Vinyl acetate is used in the production of which vinyl	
		Based fibre?	
	2	What are Nylon 11 and Nylon 6T chemically?	
	3	Name two Natural protein fibres.	
	4	Name any two Inorganic fibres.	
	5	Polyvinyl alcohol gives water soluble fibres, true or false?	
	6	Which fibre combines properties of Nylon and polyester?	
	7	Agave fibres are obtained from	
	8	Which fibre is used for making dissolvable suture threads?	
	9	Which is the most inert and heat resistant fibre?	
	10	Name a regenerated protein fibre.	
	11	Soya bean fibres are obtained from	
	12	Abaca is a bast fibre, true or false?	
	13	What are Type E and Type C borosilicates?	
	14	Which fibre is used to produce bullet proof jackets?	
Q.2	(a)	Give the uses of Alginate fibres based on its solubility	03
		properties.	
	(b)	What is the source of Alginate fibres? How are they	04
		produced?	
	(c)		07
		It is used as insulation material. Give other end uses and	
		applications of this fibre.	
		OR	
	(c)	Describe in detail the properties and applications of carbon	07
		fibres.	
Q.3	(a)	<u> </u>	03
	<i>a</i> >	fibre.	0.4
	(b)	Discuss the properties and applications of Polystyrene	04
	(a)	fibres. Write a review of recent developments in taxtile fibres (lest	07
	(c)	- · · · · · · · · · · · · · · · · · · ·	07
		five years). OR	
Q.3	(a)	Write about source and properties of Sunn hemp fibre.	03
Q.J	(b)	Discuss the properties and applications of Soya bean fibre.	04
	(c)	Discuss the properties and uses of Aluminum silicate	07
	(C)	fibres.	07
Q.4	(a)	Write a note on Manila fibre.	03
۲.,	(b)	In brief, describe the process of production of Carbon	04
	()	Fibre.	-
	(c)	Tencell/ Lyocell is obtained from which raw material?	07
	` /	Describe its synthesis and properties. Why is it considered	

an eco-friendly fibre from cradle to grave?

OR

Describe the extraction of Sisal fibre.

		OR	
Q.4	(a)	Describe the extraction of Sisal fibre.	03
	(b)	Discuss source, properties and applications of Chitosan fibres.	04
	(c)	Which type of fibre is casein? Describe the synthesis and uses of casein.	07
Q.5	(a)	Write its properties and uses. (a) Sisal (b) Abaca	03
	(b)	Give the uses of the following fibres: (i) Glass Fibres (ii) Soya bean fibres.	04
	(c)	What is the source of Alginate fibres? How are they produced? Give the uses of Alginate fibres based on its solubility properties.	07
		OR	
Q.5	(a)	Discuss the properties and uses of Kenaf fibre.	03
	(b)	Describe the production process of groundnut protein fibres.	04
	(c)	What are Aramid fibres? Give production, properties and uses of Aramid fibres (Nomex and Kevlar).	07
