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SARDAR PATEL UNIVERSITY

MSc.(Home Science)
First Semester Examination
Friday, 30th November, 2012
Time: 10.30 am to 1.30 pm
Subject: TEXTILE CHEMISTRY [PH01CTCL02]

Max.Marks:70

Note: Figures to the right indicate marks of the question.

Q-1 Write the most appropriate answer from the following multiple choice questions. **08**

1 Basic unit of protein fiber is
(a) Glucose (b) Adipic acid
(c) Amino acid (d) Galactose

2 Degree of polymerization of Viscose Rayon is about
(a) 18000 Cellobiose units (b) 5000 Cellobiose units
(c) 175 Cellobiose units (d) 250 Cellobiose units

3 In Detergent active group is
(a) $R\text{-}SO_3Na$ (b) Na_2CO_3
(c) R-COONa (d) NaOH

4 Jute is a
(a) Seed hair fibre (b) Protein fibre
(c) Bast fibre (d) animal fibre

5 Polyester fibre is made up of
(a) Caprolactom (b) Ethylene glycol and Terphthalic acid
(c) Hexamethylene diamine (d) Adipic acid and Hexamethylene diamine

6 Temporary hardness is due to_____ of Ca and Mg
(a) Sulphates (b) Chlorides
(c) Bicarbonates (d) Nitrates

7 Bond present in Silk is
(a) Glucosidic (b) Ester
(c) Peptide (d) Phosphate

8 Which of the following is not a natural fiber
(a) PAN (b) Flex
(c) Wool (d) Silk

PTO

Q-2	Explain with example **any Seven** of the following.	14
	1. Degree of Polymerization	
	2. Types of polymer	
	3. Composition of cotton fiber	
	4. Modacrylic fiber	
	5. Peptide bond	
	6. Hydrogen bond	
	7. Laundering and dry-cleaning	
	8. Bio-soft and Bio-hard detergent	
	9. Hardness of water	
Q-3 (a)	What is textile fiber? Explain with examples classification of textile fiber	06
Q-3 (b)	Explain in detail Orientation in the textile fibers	06
	OR	
Q-3 (b)	Explain in detail "sequestering agents" use to remove permanent hardness of water	06
Q-4 (a)	What is micro-fibre? Explain composition and properties and uses of micro fibres.	06
Q-4 (b)	Explain cleansing action of soap or detergent	06
	OR	
Q-4 (b)	What are builders? Explain in detail	06
Q-5 (a)	Explain In detail manufacturing process (Flow chart) of cotton	06
Q-5 (b)	Write physical and chemical properties of Viscose rayon fiber	06
	OR	
Q-5 (b)	Explain with examples laundry bleaches, blues and brighteners	06
Q-6 (a)	Explain in detail manufacturing process (Flow chart) of polyester fiber	06
Q-6 (b)	Write structure and properties of Nylon fiber	06
	OR	
Q-6 (b)	Explain in detail manufacturing process (Flow chart) of Viscose rayon	06

—X—