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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-SO₃Na (b) Na₂CO₃
(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

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- 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