

UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Eighth Semester – Spring 2022

Paper: Applied Chemistry (Sp. Theory-I) Course Code: CHEM-434 Tin

THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Write short answers to the following questions. (15x2=30)

- (i) Give reactions for the conversion of methane to acetylene.
- (ii) What are the major uses of carbon black?
- (iii) Write down the chemical reactions involved in manufacturing of viscose rayon.
- (iv) Describe neutralizing and dyeing in leather industry.
- (v) Write down the major and minor components of fats and oil.
- (vi) Define mercerization and briefly describe its importance in textile finishing
- (vii) What is meant by emulsion and gives its types?
- (viii) Chromium salts are undesirable in leather industry, comment
- (ix) What are important petrochemicals obtained from propene and acetylene.
- (x) Enlist the raw materials for Dacron, also give the reaction of its formation.
- (xi) Distinguish between primary petrochemical and intermediate petrochemicals. Give examples.
- (xii) Write the chemical equations of the production of nylon 66 and nylon 6.
- (xii) Name different processes used for the conversion of polymers to fibres.
- (xiv) Describe the reasons of fat spoilage.
- (xv) Differentiate between simple and mixed triglycerides with one example of each.

Write detailed answers to the following questions.

Q No. 02 (a)	Give brief description of 'CHROME TANNING' process in the manufacturing of leather	(6)
(b)	What are the major pollutants of leather industry and how are these treated?	(4)
Q No. 03 (a)	Discuss the refining of crude vegetable oils by alkali method.	(5)
(b)	Write a concise note on the 'HYDROGENATION' of vegetable oils.	(5)
Q No. 04 (a)	Describe the process of manufacturing of acetate rayon.	(4)
(b)	Write down the chemistry of naphthalene and its importance as petrochemical.	(6)