UNIVERSITY OF THE PUNJAB

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

Roll No. .....

Paper: Physical Chemistry (Sp. Theory-I) **Course Code: CEHM-403** **Time: 3 Hrs. Marks: 60**

THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Answer the following short questions: (15x2=30)

a) What is meant by enzyme inhibition?

b) What do you mean by critical micelle Concentration (CMC)

c) How Tyndall effect is observed? What is emulsification?

d) Write two points of difference between colloids and sols.

e) Name different types of sols.

f) Differentiate between Electrophoresis and Electrosmosis.

g) Define autocatalysis.

h) Define enzyme catalysis with a suitable example.

i) What do you mean by colloidal dispersion.

j) What is the effect of surface area on adsorption.

k) What is Thixotrophy phenomenon?

l) Write any two postulates of Langmuir adsorption isotherm.

m) Define Zeta potential.

n) What is homogeneous catalysis. Write two examples?

o) Enzymes as catalysis are specific in nature, justify.

Answer the following questions.

Q. No. 02. a) Explain Langmuir Hinshelwood mechanism to study organic and inorganic reactions. **(06)**

b) Discuss heterogeneous kinetics of double system reactions. **(04)**

Q. No. 03.

a) Discuss the preparation and purification of sols. **(05)**

b) What is adsorption. Discuss Langmuir adsorption isotherm. **(05)**

Q. No. 04.

a) What are colloids? Discuss Kinetic properties of Sols. **(06)**

b) Explain Michaelis- Menton mechanism for enzyme catalysis. **(04)**