Seat No:_____ Enrollment No:_____

PARUL UNIVERSITY

FACULTY OF APPLIED SCIENCE

M.Sc.Winter 2019-20 Examination

Semester: 1 **Date: 29/11/2019**
Subject Code: 11203108 **Time: 10:30pm to 01:00pm**
Subject Name: ADVANCED ENZYMOLOGY **Total Marks: 60**

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1. A) Essay type/ Brief note (4x2) (Each of 04 marks) **(08)**
(a) Describe Remarkable properties of enzymes

Q.1. B) Answer the following questions (Any two)
(a) Write classification of an enzyme with each example. **(04)**
(b) Describe various factor which are affecting on Enzyme activity. **(04)**
(c) Describe Enzyme purification technique Enzyme. **(04)**

Q.2. A) Answer the following questions.
(a) Short note on ELISA. **(04)**
(b) Describe Lock and Key Model. **(04)**

Q.2. B) Answer the following questions (Any two)
(a) Give significance of K_m. **(03)**
(b) Short note on mechanism of action and regulation of Pyruvate dehydrogenase. **(03)**
(c) Short note on Isoenzymes. **(03)**

Q.3. A) Essay type/ Brief note (4x2) (Each of 04 marks) **(08)**
(a) What is steady state kinetics? Derive M.M. equation with its plot.

Q.3. B) Answer the following questions (Any two)
(a) Give an account on flavin nucleotide. **(04)**
(b) Explain mechanism of reaction catalyzed by ribonuclease. **(04)**
(c) Short note on abzyme. **(04)**

Q.4. A) Answer the following questions.
(a) Fill in the blanks. (Each of 02 marks) **(04)**
1. Koshland's theory of enzyme is known as _____, Fischer proposed _____theory of enzyme.
2. FAD stands for _____
(b) Short note on Immobilized enzymes. **(04)**

Q.4. B) Answer the following questions (Any two)
(a) Short note/ Multiple choice questions. (Each of 01 marks) **(03)**
1. Define : Active site
2. Write significance of Vmax
3. What is Zymogen?
(b) Short note on competitive inhibition. **(03)**
(c) List out application of an enzyme in Industry. **(03)**