**14BCV07/14BCU07**

**PSG COLLEGE OF ARTS & SCIENCE**
(AUTONOMOUS)

**BSc DEGREE EXAMINATION DECEMBER 2018**
(Second Semester)

Branch - **BIOCHEMISTRY**

**ENZYMOLOGY**

Time : Three Hours Maximum : 75 Marks

**SECTION-A (20 Marks)**

» Answer **ALL** questions
**ALL** questions carry **EQUAL** marks (10x2 = 20)

1 What happens to Michalis-Menten equation when v is one half of Vmax?
2 Define molecular activity and its importance.
3 What are affinity labels?
4 Define 'modulator'.
5 What are multienzyme systems or complexes?
6 Name the reactive aminoacid residues present at the active site of chymotrypsin.
7 Give four examples for enzymes which are useful in clinical diagrams.
8 What are Isozymes?
9 What are Ribozymes?
10 What is Biosensor?

**SECTION - B (25 Marks)**

Answer **ALL** Questions
**ALL** Questions Carry **EQUAL** Marks (5 x 5 = 25)

11 a (i) Define Km.
(ii) What are the advantages of graphical evaluation of Km & Vmax?
~ OR
b Write the structure & functions of FAD.

12 a How are aminoacids present in the active site identified?
OR
b Compare the competitive inhibition with noncompetitive & uncompetitive inhibitions.

13 a Describe in detail about the general acid base catalysis.
OR
b How are site directed mutagenesis studies useful in identifying the aminoacids present in the active site?

14 a How is alkaline phosphatase is used in he diagnosis of bone disease?
OR
b Write notes on isoenzymes of creatine phosphokinase.

15 a Write a note on Antibody enzymes.
OR
b Briefly explain the methods used for enzyme immobilization.

**SECTION - C 130 Marks)**

Answer any **THREE** Questions
**ALL** Questions Carry **EQUAL** Marks (3x10 = 30)

16 Derive MM equation.

17 Explain Fischer & Koshland hypothesis.

18 Explain Covalent catalysis with an example.

19 Discuss the industrial annlication nf en7vmp«