CODE NO BT 414

2007 ANDHRA UNIVERSITY

B.TECH BIO-TECHNOLOGY 4-1

PROTEIN ENGINEERING

TIME: 3 HOUR
MARK: 70

- Answer Question No.1 Compulsorily (1*14=14)
- Answer ONE Question From Each Unit (4*14=56)

1.Explain the following

1.SRP

2.PDGF receptor.

3.Ribunuclease.

4.Protein Turnover.

5.Disulphide bonded proteins

6.Biosensor.

7.Polyarginine.

8.Trp represser.

9.Signal sequence.

10.Proteolysis.

11.Synchrotron.

12.ROP

13.T4 lysozyme.

14.Engineered protein.

UNIT I

2.a. Describe methods for protein isolation, purification and quantification.

(or)

b. Give the details of design and synthesis of peptides. Add note on use of peptide in biology.

UNIT II.

3.a. Give details of DNA polymerases membrane proteins and receptors

(or)

b.What is "Globin Fold"? How is it preserved in terms of evolutionary changes? State briefly the reason for the natural selection of sickle-cell haemoglobin although it is fatal in homozygotic condition.

c.Write notes on immunoglobulins.

UNIT III.

4. a. Give details of Chaperons in protein folding and non-covalent forces in protein folding.

(or)

b. Explain protein degradation and turnover

c.Describe intracellular digestion of protein in lysosomes.

UNIT IV

5.a. Give details of membrane bound proteins, secretory proteins and transport vesicles.

(or)

b. Write an essay on protein targeting in bacterial system. What are differences between protein targeting between prokaryotic and eukaryotic systems. y of cancer treatment.