

COURSE CODE: 18B1WBT732

MAX MARKS: 25

COURSE NAME: PEPTIDE THERAPUETICS

COURSE CREDITS: 3

NOTE: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q1. Answer the following questions.

[Co V]

- a) What happen if a peptide A with disulphide bond reacts with mecaptoethanol followed by reaction with iodoacetate? [1]
- b) What are the general rules for protein folding [1]
- c) What is the role of following reagents on peptides a) cyanogens Bromide b) flurodinitrobenzene c) Carboxpeptidase A d) Carboxpeptidase B [2]
- d) Why protecting group are mandatory in peptide synthesis? [2]
- e) Calculate the axial length of an alpha helix containing 82 amino acids. How long would be the peptide chain if it were fully extended? [2]
- f) List problems associated with peptide as drug candidates. What are the ways to tackle these problems? [3]
- g) Amino acid analysis of 1.0 mg of pure enzyme yielded 116.2 µg of leucine (MW =131.2) and 72.4 µg of tryptophan (MW =204.2). What is the minimum MW of the enzyme? [3]

Q2. How angiotensin-1 enzyme inhibitory peptides work?

[Co IV] [2]

Q3. What are the advantages and disadvantage of peptides versus small molecule?

[Co II] [3]

Q4. What are peptidomimetics? How they are classified? Explain mode of action of antifungal peptides or peptidomimetics?

[Co IV] [3]

Q5. Explain mechanism of action of antimicrobial peptides briefly.

[Co IV] [3]