

Unit 10 - Week 8: Protein Sequencing and Solid Phase Peptide Synthesis (SPPS)

Course outline

How does an NPTEL online course work?

Week 0: Prerequisite

Week 1: Nucleic acids and proteins

Week 2: Nucleic acids and proteins

Week 3 : Synthesis of Nucleobases and Nucleotides

Week 4 : DNA Replication, Polymerases, DNA Sequencing and PCR

Week 5 : DNA Replication, Polymerases, DNA Sequencing and PCR

Week 6: DNA damage, mutation and cancer

Week 7: DNA to proteins: transcription, translation and genetic code`

Week 8: Protein Sequencing and Solid Phase Peptide Synthesis (SPPS)

Lec 23: Role of Ribosome in protein synthesis and the concept of codon

Lec 24: Protein sequencing using Sanger's and Edman's degradation methods

Lec 25: Mass spectroscopy and other sequencing methods for large proteins

Quiz : Assignment 8

Lecture notes: Week 8

Weekly feedback form for week 8

Week 9: Chemical Synthesis of Peptides and its therapeutic applications; Spectroscopic techniques for biomolecules.

Week 10: Modern techniques for biomolecules study, purification and characterization; Molecular probes

Week 11: Molecular probes and Chemistry of carbohydrates

Week 12: Chemistry of carbohydrates and Recap

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Assignment 8

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-03-25, 23:59 IST.

- 1) Write down the mRNA sequence corresponds the given sense (strand) DNA sequence: **2 points**
- 5'- ATG AGA GCC ACC CTG TAA TGG-3'
- 5'- TAC TCA CGG TGG GAC ATT ACC-3'
 5'- AUG AGA GCC ACC CUG UAA UGG-3'
 5'- ATG AGA GCC ACC CUG UAA UGC-3'
 5'-TAG TCA CGG TCC GAC ATT TGG-3'
- No, the answer is incorrect.**
Score: 0
- Accepted Answers:**
5'- AUG AGA GCC ACC CUG UAA UGG-3'
- 2) How many amino acids can be synthesized from the correct sequence (correct answer) for question no. 1? **0 points**
- 1
 3
 2
 6
- No, the answer is incorrect.**
Score: 0
- Accepted Answers:**
6
- 3) The key reagent used in Sanger,s sequencing is: **2 points**
- 2,4-dinitrofluorobenzene
 2,3-dinitrofluorobenzene
 2,4- dinitrochlorobenzene
 NOTA
- No, the answer is incorrect.**
Score: 0
- Accepted Answers:**
2,4-dinitrofluorobenzene
- 4) Edman degradation is used to: **2 points**
- Identify the N-terminal amino acid
 Identify the C-terminal amino acid
 For the identification of amino acid
 For the identification of monosaccharide
- No, the answer is incorrect.**
Score: 0
- Accepted Answers:**
Identify the N-terminal amino acid
- 5) Trypsin is a type of proteolytic enzyme responsible for cleavage of C-terminal of which two amino acids. **1 point**
- Arginine and Phenylalanine
 Lysine and Serine
 Lysine and Arginine
 Phenylalanine and Cystein
- No, the answer is incorrect.**
Score: 0
- Accepted Answers:**
Lysine and Arginine
- 6) Which of the following is a Edman reagent **2 points**
- 2, 4-dinitrofluorobenzene
 Phenylisothiocyanate
 Dansyl chloride
 Ninhydrin
- No, the answer is incorrect.**
Score: 0
- Accepted Answers:**
Phenylisothiocyanate