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Question Paper Code: 58967

B.E./B.Tech. DEGREE EXAMINATION, DEC 2021

One credit Course

Chemical Engineering

15UCH867 - ENZYMES FOR ENVIRONMENTAL APPLICATIONS

(Regulation 2015)

Duration: 1.30 hours

Maximum: 50 Marks

PART A - (10 x 1 = 10 Marks)

- Enzymes are _____ biocatalyst produced by cells CO1 U
(a) protein (b) vitamin (c) mineral (d) acid
- There are _____ main groups of enzymes CO1 U
(a) 5 (b) 6 (c) 4 (d) 7
- Enzymes are _____ soluble CO1 U
(a) Water (b) acid (c) organic acids (d) alkali
- Non protein part of complex enzymes is called as _____ CO1 U
(a) simple enzyme (b) apo-enzyme (c) co-enzyme (d) holo enzyme
- Co-enzymes are heat stable low molecular weight _____ compound CO1 U
(a) basic (b) organic (c) in-organic (d) acidic
- There are _____ groups of co-enzymes CO1 U
(a) 2 (b) 3 (c) 4 (d) 5
- Most of the enzymes are obtained from CO1 U
(a) plants (b) animal tissues (c) microbes (d) insects

- In gel filtration chromatography technique, separation of proteins are CO2 U

based on their

(a) size and charge

(b) size and shape

(c) shape and net charge

(d) size and specific affinity

9. Which of the following is not included under the category of intracellular enzymes CO2 U

(a) DNA polymerase

(b) RNA polymerase

(c) pectinase

(d) ATP synthetase

10. Enzyme used for the removal of oil and grease is ----- CO2 U

(a) amylase

(b) lipase

(c) laccase

(d) lyase

PART – B (2 x 20= 40Marks)

(Answer any three of the following questions)

11. Explain the factors affecting enzyme activity with examples CO1 U (20)

Or

Describe the significance of co-factors and co-enzymes in enzyme reaction mechanism CO1 U (20)

12. Explain in detail about the extraction of enzymes from plant and microbial sources CO2 U (20)

Or

Discuss briefly the applications of enzymes for environmental purposes CO2 U (20)