

16P114

(Pages:2)

Name:

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2016

(Regular/Supplementary/Improvement)

(CUCSS-PG)

CC15P ZO1 C01 – BIOCHEMISTRY

(Zoology)

(2015 Admission Onwards)

Time: Three Hours

Maximum: 36 Weightage

I Answer all the questions.

1. What is a buffer? How amino acids act as buffers.
2. What is an epimer? Give an example.
3. Describe isoelectric point. Mention its practical application.
4. What are molecular chaperones? Mention its functions.
5. Classify lipids.
6. What is an active site? How it is formed?
7. Glycogen is the storage form of glucose. Why glucose is to be converted to glycogen for storage?
8. What is galactosemia?
9. What is transamination?
10. What are ribozymes?
11. What are biologically active peptides? Give an example.
12. What is Cori cycle?
13. Define entropy.
14. Name the purines and pyrimidines of DNA.

14 X 1 = 14 weightage

II. Answer any seven questions.

15. Describe the storage polysaccharides?
16. Describe the structure and functions of prostaglandins.
17. Describe the structural organization of tRNA.
18. Distinguish between competitive and non-competitive inhibition.
19. Distinguish between the structure of amylose and cellulose.
20. What are triglycerides? Briefly describe the biosynthesis of triglycerides.
21. Write a brief note on microRNA.
22. Discuss Ramachandran plot. Mention its applications.
23. Describe glutamic acid metabolism.
24. Discuss the interactions that stabilize the structure of the protein.

7 X 2 = 14 weightage

III. Answer any *two* questions.

25. Describe the primary, secondary, tertiary and quaternary structure of proteins with suitable examples.
26. Describe the HMP pathway for the biosynthesis of pentoses.
27. Discuss the mechanism of enzyme action with suitable examples.
28. Describe the citric acid cycle with suitable illustrations.

2 X4 = 8 weightage
