

K23U 4133



Reg. No. : .....

Name : .....

I Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/  
Improvement) Examination, November 2023  
(2020 Admission Onwards)  
CORE COURSE IN LIFE SCIENCES (ZOOLOGY) AND COMPUTATIONAL  
BIOLOGY  
1B01 ZCB : Biochemistry and Biophysics

Time : 3 Hours

Max. Marks : 40

PART – A

Write about **each** of the following in 2 or 3 sentences. **Each** question carries 1 mark. (6×1=6)

1. Buffer solution
2. Thin layer chromatography
3. Allosteric enzymes
4. Prostaglandins
5. Gangliosides
6. Colorimeter.

PART – B

Explain **any six** of the following. **Each** question carries 2 marks. (6×2=12)

7. HPLC
8. Isozymes
9. Pentose phosphate pathway
10. Autoradiography

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K23U 4133



11. Ketogenic amino acids
12. Biological importance of lipids
13. Henderson-Hasselbalch equation
14. Deamination.

PART – C

Write short essays on **any four** of the following. **Each** question carries **3** marks. **(4×3=12)**

15. Explain TEM and SEM.
16. What is PAGE ? Write its applications.
17. Distinguish between essential and non-essential amino acids.
18. Different classes of enzymes.
19. Principle of spectrophotometer.
20. Elaborate on phospholipids.

PART – D

Write essays on **any two** of the following. **Each** question carries **5** marks. **(2×5=10)**

21. Give an account on the biological functions of proteins.
  22. Briefly explain the various steps in Kreb's cycle.
  23. Describe the mechanism of enzyme action.
  24. Briefly explain differential and density gradient centrifugation.
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