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VI Semester B.Sc. Degree Examination, September/October 2022
(CBCS Scheme) (F+R)
BIOCHEMISTRY (Paper – VII)

Time : 3 Hours

Max. Marks : 70

- Instructions :** 1) This question paper has **two** Parts, Part – **A** and Part – **B**.
2) Answer **any eight** questions from Part – **A**.
3) Answer **any nine** questions from Part – **B**.

PART – A

Answer **any eight** of the following questions. **Each** question carries **two** marks. (8×2=16)

1. Write a note on phases of metabolism.
2. Mention the components of PDH.
3. What are essential fatty acids ? Give an example.
4. Write the structure of cholesterol.
5. Expand SGOT and SGPT.
6. How is Histamin biosynthesised ?
7. Mention any one source each for carbon and nitrogen required for purine ring synthesis.
8. Distinguish between cyclic and non-cyclic photophosphorylation.
9. Define substrate level phosphorylation.
10. Mention the function of nitrogenase complex.
11. How Lactose enters into glycolysis ?
12. Write the irreversible reactions of glycolysis.



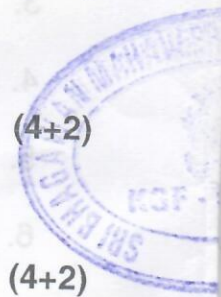
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PART - B

Answer **any nine** of the following questions. **Each** question carries **six** marks. (9×6=54)

13. a) Explain the reactions of conversion of Glyceraldehyde-3-phosphate into PEP. (4+2)
- b) How is pyruvate converted into ethanol ? (4+2)
14. a) How α -ketoglutarate is converted into fumarate ? (4+2)
- b) Mention the hypoglycemic hormone. (4+2)
15. a) Write a note on anaplerotic reactions of TCA cycle. (4+2)
- b) Mention the significance of HMP pathway. (4+2)
16. a) Enumerate the reactions of β -oxidation of palmitic acid. (4+2)
- b) Calculate the bioenergetics of β -oxidation of palmitic acid. (4+2)
17. a) Write the steps involved in ketone body utilization. (4+2)
- b) What is meant by Atherosclerosis ? (4+2)
18. a) Explain transamination reaction with suitable examples. (4+2)
- b) What is meant by AKU ? (4+2)
19. a) Describe the structure of fatty acid synthase complex and mention the functions. (4+2)
- b) Calculate ATP yield for oxidation of one molecule of acetyl CoA by TCA cycle. (4+2)
20. a) Enumerate the cytosolic reactions of urea cycle. (4+2)
- b) Write a note on synthesis of glycine from serine. (4+2)
21. a) Explain the conversion of IMP into GMP and AMP. (4+2)
- b) What are uricotelic animals ? Give an example. (4+2)





22. a) Discuss in detail about Light reactions of photosynthesis. October 2022
b) Write the reaction for conversion of ribonucleotide to deoxyribonucleotide. (4+2)
23. What are Glycogen storage disorders ? Explain the types. Max. Marks : 7 6
24. a) Write a note on Bacterial photosynthesis. Part - A and Part - B.
b) Mention the components of nitrogenase complex. (4+2)
25. a) Explain about the uric acid biosynthesis. (8x2=16)
b) What is photolysis of H₂O ? (4+2)

