K20P 1075

Reg. No. : .....

Name : .....

III Semester M.Sc. Degree (CBSS – Reg./Suppl./Imp.) Examination, October 2020
(2014 Admission Onwards)
BOTANY
BOT3C 11 : Biochemistry and Biophysics

Time : 3 Hours Max. Marks : 60

Instruction : *Draw diagrams* ***wherever*** *necessary.*

SECTION – A

1. a) Write an account on the structure of proteins.

   OR

   b) Explain the structure, function and classification of enzymes.

2. a) Write an account on the principle, types and applications of TLC.

   OR

   b) Describe the role of radioisotopes in biological research. **(2×8=16)**

SECTION – B

Answer **any two** :

3. a) Differentiate lipids from fats.
   b) Classify lipids.
   c) Write on the importance of cholesterol. **(1+3+2)**

4. a) What are enzymes ?
   b) Derive Michaelis-Menton equation.
   c) Add a note on enzyme inhibition. **(1+3+2)**

5. a) Define buffer.
   b) Write their uses in biological research.
   c) Describe Henderson-Hasselbalch equation. **(1+2+3)**

(2×6=12)

P.T.O.

SECTION – C

Answer **any six** :

6. Explain B oxidation.
7. How do you classify proteins ?
8. Describe biodegradation of pyramidines.
9. Explain pentose phosphate pathway.
10. Explain the role and significance of nitrogenous compounds in plant defence mechanism.
11. Mention the principle and applications of X-ray diffraction.
12. How NMR is useful in biological research ?
13. Write a brief note on FMRI. **(6×3=18)**

SECTION – D

Answer **any seven** :

14. Glycosides.
15. Reductive amination.
16. Ramachandran plot.
17. MHC.
18. Regulatory enzymes.
19. Inflammation.
20. Dosimetry.
21. ECG.
22. GM counter.
23. Vitamin D. **(7×2=14)**