



K16P 1001

Reg. No. :

Third Semester M.A./M.Sc./M.Com. Degree (Reg./Suppl./Imp.)
Examination, November 2016
BOTANY

BOT 3C11: Biochemistry and Biophysics (2014 Admission Onwards)

Time: 3 Hours Max. Marks: 60

Instruction: Draw diagrams wherever necessary.

SECTION - A

1. a) Write an account on the classification and chemistry of monosaccharides.

OR

- b) Explain the structure and functions of immunoglobulins.
- 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) Define proteins.
 - b) Classify proteins.
- c) Explain tertiary structure of proteins.

(1+2+3)

- 4. a) What are enzymes?
 - b) Explain Lineweaver Burk plot.
 - c) Add a note on enzyme inhibition.

(1+2+3)

- 5. a) What is a buffer?
 - b) What are its functions?
 - c) Describe Henderson-Hasselbalch equation.

(1+2+3)

 $(2 \times 6 = 12)$

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SECTION-C

Answer any six.

- 6. Explain biosynthesis of amino acids.
- 7. How do you classify lipids?
- 8. Describe biodegradation of lipids.
- 9. Explain humoral immunity.
- 10. Explain the role and significance of terpenes in plant defence mechanism.
- 11. Mention the principle and applications of spectrophotometry.
- 12. How X-ray diffraction studies are useful in biological research?
- 13. Write a brief note on ECG.

 $(6 \times 3 = 18)$

SECTION - D and to muchos as office is

Answerany seven.

- 14. Structure of starch. algoriumm to anothorish bas enutourie ont mislocal (d.
- 15. Transamination.
- 16. Triglycerides.
- 17. Vitamin D.
- 18 HIV.
- 19. Photomicrography.
- 20. Electrophoresis.
- 21. Atomic Absorption Spectrophotometer.
- 22. CAT.
- 23. Inflammation.

(22=14) Explain tertiary structure of proteins: