K17P 1244

Reg. No. : .....

Name : .....

Third Semester M.Sc. Degree (Reg./Suppl./Imp.) Examination, November 2017

BOTANY

BOT 3C11 : Biochemistry and Biophysics

(2014 Admn. Onwards)

Time : 3 Hours

Max. Marks : 60

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

SECTION – A

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

   OR

   b) Explain the mechanism of immune response.

2. a) Describe different techniques employed in the measurement of radio activity.

   OR

   b) Explain an account on the principle, types and applications of electrophoresis.

(2×8=16)

SECTION – B

Answer **any two** :

3. a) Differentiate lipids from fats.
   b) Write the structure of cholesterol.
   c) Explain β -oxidation.

(1+2+3)

4. a) Write the structure of Fructose.
   b) What are amino sugars ?
   c) Explain pentose phosphate pathway.

(1+2+3)

5. a) Define photometry.
   b) Mention the principle of colorimetry.
   c) Write a note on photomicrography.

(1+2+3)

(2×6=12)

P.T.O.

SECTION – C

Answer **any six** :

6. Explain biosynthesis of purines.
7. Write a note on regulatory enzymes.
8. Explain cell mediated immunity.
9. Discuss the role of phenols in plant defense mechanism.
10. Write on the importance of chromatography in biological research.
11. Derive Henderson-Hasselbach equation.
12. Write on MRI and its applications.
13. What are lectins ? Mention their significance. **(6×3=18)**

SECTION – D

Answer **any seven** :

14. Peptidoglycans.
15. Reductive amination.
16. Isozymes.
17. Cobalamine.
18. Vaccines.
19. Centrifugal force.
20. GCMS.
21. Freeze drying.
22. Buffer.
23. ECG. **(7×2=14)**
