

APRIL/MAY 2019

**BABT22 — PRINCIPLES OF CHEMISTRY
IN BIOLOGY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are atoms? Give Example.
2. Define Atomic number.
3. Define Ionisation energy.
4. What is Electron affinity?
5. What are redox titrations.
6. Define electro negativity.
7. What are Ionic Bond.
8. What is a Hydrogen bond.
9. What are Free radicals?
10. Define Ionization.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write short note on stable and unstable atoms.

Or

- (b) What are quantum numbers? Give its applications.

12. (a) Explain about Atomic radii of an atom.

Or

- (b) Write short note on Metallic character of Na and K.

13. (a) Explain the terms – Molarity, Molality and Normality with example.

Or

- (b) What are Indicators? Give example.

14. (a) Explain in detail on ionic bond and hydrogen bonding interaction with example.

Or

- (b) List out the various biological important pH and its application.

15. (a) Write short note on superoxide free radicals.

Or

- (b) Write an account on hydrogen peroxide free radical.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions

16. Give a detailed account on characteristics of s,p and d block elements.

17. Write in detail about periodic table of different elements.

18. Brief out the details on different types of titrimetric reactions and its applications.

19. Elaborate on carbonate and bicarbonate buffering system.

20. Explain the properties, ionization and tetra hedral structure of water.