

**B. Sc. DEGREE END SEMESTER EXAMINATION - OCTOBER 2018****SEMESTER – 3: CHEMISTRY (COMPLEMENTARY FOR BOTANY & ZOOLOGY)****COURSE: 15U3PCHE3.2 – INORGANIC AND BIO-INORGANIC CHEMISTRY***(For Regular - 2017 Admission and Supplementary / Improvement 2016 & 2015 Admissions)*

Time: Three Hours

Max. Marks: 60

**Section A***(Answer **all** the questions. 1 mark each)*

1. Give two examples for micro nutrients
2. Represent the structure of DDT
3. Give examples for co-enzymes
4. What are tranquilizers
5. Give the antidote for mercury
6. The metal present in Hemerythrin and hemocyanin
7. Name any two fumigants
8. The sugar present in ATP is..... (1 × 8 = 8)

**Section B***(Answer any **six** questions. 2 marks each)*

9. What is meant by coupled reactions? Explain with examples
10. What are enzyme cofactors? Give an example.
11. What are antidepressants?
12. Differentiate metal deficiency and metal toxicity with examples.
13. Explain the function of herbicides. Give examples.
14. What are mixed fertilizers? Give uses.
15. Explain photophosphorylation.
16. Give some important biological function of RNA. (2 × 6 = 12)

**Section C***(Answer any **four** questions. 5 marks each)*

17. Explain Chelation Therapy.
18. Discuss the environmental hazards caused by the excessive use of pesticides.
19. Write a short note on structure and function of Vitamin B<sub>12</sub>
20. Explain the toxicity effects of mercury and plutonium
21. Discuss in detail the structure and functions of DNA
22. Write a short note on the structural features and biological function of cytochromes

(5 × 4 = 20)

**Section D**

*(Answer any **two** questions. 10 marks each)*

23. a) Explain the function of myoglobin and hemoglobin in the oxygen transport  
b) Write a short note on peroxidase and catalase
24. a) Explain the significance of ATP in bioenergetics. (4)  
b) Write a short note on fungicides (3)  
c) Briefly explain the mechanism of enzyme action (3)
25. a) Discuss in detail about sulpha drugs and antibiotics.  
b) Explain the role of photosystem I and photosystem II in photosynthesis
26. a) Explain the significance of trace elements in biological systems  
b) Discuss briefly about (a) anticancer drugs and (b) use of gold compounds as anti-arthritis drugs.

(10 × 2 = 20)

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