

Reg. No.....

Name.....

B. Sc. DEGREE END SEMESTER EXAMINATION - OCTOBER 2015

SEMESTER-3: CHEMISTRY (COMPLEMENTARY) FOR B. Sc. BOTANY/ZOOLOGY

COURSE: U3CPCHE4 - ADVANCED INORGANIC AND ORGANIC CHEMISTRY

Time: Three Hours

Max. Marks: 60

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

1. The spontaneous emission of α -particle from Uranium – 238 yield
2. Mention any four plant micronutrients.
3. What are exergonic reactions?
4. The pH range of blood is
5. Draw the structure of furan.
6. Give the name of any one supra drug.
7. The chemical name of saccharin is....
8. Name one herbicide commonly used. (1 x 8 = 8)

SECTION B(Answer any **Six** questions. **2** marks each)

9. Define half life period. Find the decay constant of a radioactive substance with half life period of 25days.
10. What is radiotherapy? Give the names of two radio isotopes used.
11. Define NPK value.
12. What are ferredoxins?
13. How is pyridine isolated from coal tar?
14. What is the role of antipyretic and analgesic medicines?
15. What are preservatives?
16. What are fungicides? (2 x 6 = 12)

SECTION C(Answer any **Four** questions. **5** marks each)

17. Write a note on nuclear fission reactions as a source for energy.
18. What are characteristics of a good fertilizer?
19. Explain the role of chlorophyll in living organisms.
20. Explain the extra stability of pyridine molecule on the basis of aromaticity.

21. Write a note on drug abuse.
22. Describe about various food flavours used. (5 x 4 = 20)

Section D

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

23. (a) Describe nuclear fusion reaction.
(b) Why breeder reactors called so?
24. (a) Write a note on functions of hemoglobin.
(b) Describe the importance of mixed fertilizers.
25. (a) Differentiate photosynthesis and respiration.
(b) Explain the aromatic behavior of cyclopentadienyl anion and tropylium ion.
26. (a) How is DDT prepared? Why is it banned in certain countries?
(b) Describe the environmental hazards due to the excessive use of pesticides.
- (10 x 2 = 20)
