

APRIL 2018

1713302/UCYA11C

Time : Three hours

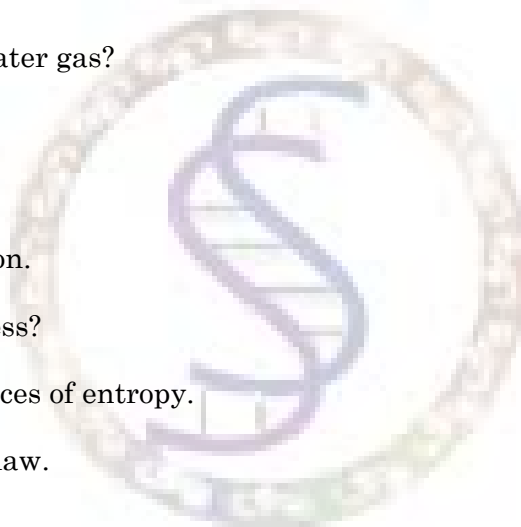
Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer any TEN questions.

Each questions carries equal marks.

1. Define mass defect.
2. What are istones and isomers?
3. What are radioactive series?
4. What are the uses of water gas?
5. What is hard water?
6. What is resonance?
7. Define hyper conjugation.
8. What is adiabatic process?
9. Give any two significances of entropy.
10. State Grothus–Droper law.



11. Define Quantum yield.
12. What is photosynthesis?

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each questions carries equal marks.

13. State group displacement law.
14. What are the uses of Ammonium sulphate, super phosphate and potassium nitrate?
15. What are the differences between BOD and COD?
16. Discuss the formation of free radicals.
17. Chloroacetic acid is much stronger than acetic acid—Why?
18. Give any two statements of second law of thermodynamic.
19. Explain Chemiluminescence with an example.

## SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

Each question carries 10 marks.

20. Distinguish nuclear fission and nuclear fusion reaction.
21. Discuss various methods of purification of drinking water.
22. Explain keto enol tautomerism.
23. Explain the working of Carnot cycle briefly.
24. Write note on Phosphorescence and fluorescence.

