

M.Sc. Semester-III, Examination, November, 2015
Organic Chemistry, Paper XI,
Selected Topics, Subject Code: 3489

Time: 2.5hrs]

[Marks: 70

- N.B. (i) Attempt all questions.
(ii) All questions carry equal marks
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- Q.1. What is PTC? Give the applications of PTC in the organic synthesis based on green chemistry. 14
OR
- Q.1. Answer the following: 14
1. Give the conventional and green route for the preparation of ethylene oxide and explain the reaction based on atom utilization ratio.
2. Give the conventional and green procedure for the synthesis of adipic acid.
3. What is Green Chemistry? Discuss any six points of principles of green chemistry.
- Q.2. Explain the terms: Bacteriostatic, bactericidal, broad spectrum antibiotic. Discuss chemistry of streptomycin. 14
OR
- Q.2. Answer the following: 14
(1) Prove the constitution of chloromycetin (2) Chemistry of tetracyclins.
- Q.3. Give the classification of explosives. Introduce the terms: Low and high explosives. Write notes on nitro explosives. 14
OR
- Q.3. (A) Give the synthesis and uses of LAS and ABS. 4
(B) Write a note on guanidine explosives. 10
- Q.4. Answer the following: 14
1. What is environmental pollution? Describe the Atmospheric pollution & Tropospheric pollution.
2. What is water pollution? Discuss the factors which are responsible for water pollution.
3. Discuss the international standards of drinking water.
4. Introduce the term: pesticides.
- OR
- Q.4. Answer the following: 14
1. Which factors are responsible for industrial waste? Explain the strategies to control it.
2. Describe Gaseous air pollutants.
3. Write a note on soil pollution.
4. Introduce the following terms:
(i) Pathogens (ii) Eutrophication (iii) Biochemical Oxygen Demand (BOD)
- Q.5. (A) Give an account of dyes used as indicators and reagents and give synthesis of any one dye used as indicator. 7
(B) Give the synthesis and uses of the following dyes: 7
(1) Caledon Jade green (2) Auramine-G
- OR
- Q.5. (A) Give an account of non – textile applications of dyes and medicinal dyes. 7
(B) Give the synthesis and uses of the following dyes: 7
(1) Direct Black-EW (2) Indigo solution blue