

NTK/KW/15–7825

Fourth Semester B. Tech. Examination

ORGANIC PROCESS TECHNOLOGY

Time : Three Hours]

[Max. Marks : 80

- N. B. :
- (1) All questions carry marks as indicated.
 - (2) Due credit will be given to neatness and adequate dimensions.
 - (3) Diagrams and Chemical equations should be given wherever necessary.
 - (4) Illustrate your answers wherever necessary with the help of neat sketches.
 - (5) Discuss the reaction, mechanism wherever necessary.

1. What is hydrolysis ? Explain various types of hydrolysis reactions with suitable examples. 13

OR

2. Describe technical preparation of furfural from carbohydrates. 13
3. Discuss technical preparation of Tetraethyl Lead. 13

OR

4. What is Alkylation ? Explain different type of Alkylation reaction with suitable examples. 13
5. (a) Discuss Thermodynamics of Oxidation reaction. 7
- (b) Discuss Liquid phase and Vapour phase Oxidation reactions. 7

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Contd.

OR

6. Discuss the manufacturing of Adipic and from Cyclohexane using green route. 14
7. What is esterification ? Elaborate esterification by giving suitable example. 13

OR

8. Discuss technical preparation of Biodiesel by transesterification process. 13
9. (a) Discuss technical petroleum hydrogenation with examples. 7
- (b) Discuss the hydrogenation of coal in detail. 7

OR

10. Discuss production of Hydrogen from various sources. 14
11. (a) Discuss various types of polymerization reaction. 7
- (b) Write short note on polyacetylene. 7

OR

12. Write short notes on :—
- (a) Polylactic acid. 7
- (b) Polyphenylenes. 7