

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Seventh Semester B.Tech Degree Examination (Regular and Supplementary), December 2020

Course Code: CH409**Course Name: ORGANIC CHEMICAL TECHNOLOGY**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer any two full questions, each carries 15 marks.*

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| 1 a) Explain vegetable oil extraction process with neat flow diagram. | (7) |
| b) Write and explain any four animal oils. | (6) |
| c) Write the significance of hydrogenation process of oils. | (2) |
| 2 a) With a neat flow diagram explain the manufacture of ethanol by fermentation process. Write the major chemical reactions involved in the process. | (7) |
| b) Describe any four methods of food processing. | (8) |
| 3 a) With a neat flow diagram explain the manufacture of raw cane sugar. | (8) |
| b) Explain the manufacture of starch from maize with a neat flow diagram. | (7) |

PART B*Answer any two full questions, each carries 15 marks.*

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| 4 a) Differentiate the sulphate and sulphite process for pulp manufacture | (3) |
| b) Explain the stock preparation process in paper making. | (5) |
| c) Explain the production of glycerine with a neat flow diagram. | (7) |
| 5 a) Explain the manufacture of chloromethane with neat flow diagram. Write the reactions involved. | (8) |
| b) With a neat flow diagram explain the manufacture of formaldehyde. Write the major engineering problems involved in the process. | (7) |
| 6 a) Explain the manufacture of paper from wood pulp with a neat diagram. | (8) |
| b) With a neat flow diagram explain the manufacturing of perchloroethylene. Write the major reactions involved. | (7) |

PART C*Answer any two full questions, each carries 20 marks.*

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| 7 a) Write down the different methods used for phenol production. | (3) |
| b) Explain the production of phenol by cumene process with a neat diagram. List the uses of phenol. | (9) |

- c) Explain the production of Maleic Anhydride with neat diagram. Write the reactions involved. (8)
- 8 a) Explain the classification of dyes. What are the different chromophores used in various types of dyes. (9)
- b) With a neat flow diagram explain the production of penicillin. (9)
- c) List any four pesticides commonly used. (2)
- 9 a) Explain the cumene manufacture with a neat flow diagram. Write down the major reactions involved. (8)
- b) Explain any two industrial applications of biotechnology. (6)
- c) Write down the raw materials and the major reactions in the production of nitrobenzene and aniline. (6)
