

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Seventh semester B.Tech examinations (S), September 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 any four types of food processing methods. | (8) |
| b) Explain the manufacture of dextrin by starch hydrolysis. List out the major starch derivatives. | (7) |
| 2 a) Explain vegetable tanning and chrome tanning process in leather manufacture. | (6) |
| b) List any four types of waxes. | (2) |
| c) With neat flow diagram explain the manufacture of beer. | (7) |
| 3 a) Explain the manufacture of ethanol with neat flow diagram. Write the major reactions involved. | (8) |
| b) Explain the hydrogenation process for oil with neat flow diagram. Write the significance of the hydrogenation process for oils. | (7) |

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

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| 4 a) With neat flow diagram explain the manufacture of soap. Write the major reaction involved in the process. | (9) |
| b) Explain the different types of detergents. | (6) |
| 5 a) Explain the manufacture of formaldehyde. Write the major reactions involved in the process. | (7) |
| b) What are the methods used for the production of vinyl chloride. Explain the manufacture of vinyl chloride by Acetylene – HCl reaction. | (8) |
| 6 a) With a neat flow diagram explain the manufacture of methanol. Write major engineering problems involved. | (7) |
| b) Explain the Kraft pulp process with neat diagram. | (8) |

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

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| 7 a) Explain the manufacture of Acrylonitrile from propylene- ammonia oxidation. Write the major engineering problems involved. | (10) |
| b) Explain the manufacture of Penicillin with a neat flow diagram. | (10) |
| 8 a) Explain the classification of dyes. Differentiate chromophore, chromogen and auxochrome with respect to a dye. | (8) |

- b) Explain the production of Maleic Anhydride with a neat flow diagram. Write the major engineering problems involved. (10)
- c) Write any two applications of biotechnology in petroleum industry. (2)
- 9 a) Explain the production of phenol by cumene process. Write the major reactions involved. (12)
- b) With a neat flow diagram explain the manufacture of any one type of pesticide. (8)

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