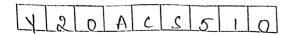
## 20CS102/20EC103/20EI103/20IT102 (CY01)

## Hall Ticket Number:



## I/IV B.Tech (Regular) DEGREE EXAMINATION

| July, 2021     |
|----------------|
| First Semester |
| TTO I TO I     |

Common to CSE, ECE, EIE, and IT Engineering Chemistry

| Time: Three Hours   |   | ee Hours Maximum   | 70 Marks |  |  |
|---|---|--|----------|--|--|
| Answer Question No.1 compulsorily. (1X14 = 141)           |   |  |          |  |  |
| Answer ONE question from each unit. $(4X14=56 \text{ N})$ |   |  |          |  |  |
| 1 Answer all questions (1X14=14 Mark                      |   |  |          |  |  |
| a) Summarize about Scales?                                |   |  |          |  |  |
| b) Classify the Priming?                                  |   |  |          |  |  |
| c) Illustrate the Temporary Hardness?                     |   |  |          |  |  |
| d) Summarize about EMF of the cell?                       |   |  |          |  |  |
| e) Illustrate the Galvanic Corrosion?                     |   |  |          |  |  |
| 1   | f) Summarize the Electro Plating process?                         |  |          |  |  |
| g) Explain about CNG                                      |   |  |          |  |  |
| h) Summarize the Octane Number?                           |   |  |          |  |  |
| i) Illustrate Net Calorific Value?                        |   |  |          |  |  |
|   | j)  | Classify different Plastics?   |          |  |  |
|   | k) Show the chemical equation involved in the preparation of PVC? |  |          |  |  |
|   | 1)  | Explain about Markowikoff's rule.  |          |  |  |
|   | m)  | Summarize the Entropy.   |          |  |  |
|   | n)  | Outline the difference between soft water and hard water?                                      |          |  |  |
| • •   |   |  |          |  |  |
| - 0   |   | UNIT I   |          |  |  |
| - 2.  | a)  | Select the method used to Estimate Total hardness of the given water sample & Discuss the ste  |          |  |  |
|   | b)  | involved in it? List out the points about Caustic Embrittlment?                                | 7M<br>7M |  |  |
|   | Uj  | (OR)   | 7171     |  |  |
| 3.  | a)  | Make use of neat diagram to explain Zeolite process?   | 7M       |  |  |
|   | b)  | Classify the methods used in the treatment of brackish water & Discuss about Electro dialysis? | 7M       |  |  |
|   | ,   | UNIT II  |          |  |  |
| 4.  | a)  | Derive Nernst equation and mention two applications.   | 7M       |  |  |
|   | b)  | Make use of a neat diagram to explain the differential aeration corrosion.                     | 7M       |  |  |
|   |   | (OR)   |          |  |  |
| 5.  | a)  | Make use of a neat diagram to explain the Electro plating of Gold?                             | 7M       |  |  |
|   | b)  | List out the points about Cathodic Protection?   | 7M       |  |  |
|   |   | UNIT III   | 73.4     |  |  |
| 6.  | a)  | Select the method used to Determine the Calorific value. Discuss its importance?               | 7M       |  |  |
|   | b)  | Make use of a neat diagram to explain the petroleum refining and mention its uses?             | 7M       |  |  |
| _   |   | (OR)   | 7M       |  |  |
| 7.  | a)  | Classify Knocking and Anti-Knocking agents?  | 7M<br>7M |  |  |
|   | b)  | List out the uses of Bio-diesel and briefly explain their preparation?                         | 7111     |  |  |
|   |   | UNIT IV  | 7M       |  |  |
| 8.  | a)  | List out the reactions involved in SN <sup>1</sup> .   | 7M       |  |  |
|   | b)  | Select the Aspirin Drug and Discuss the steps involved in synthesis of Aspirin?  (OR)          | •        |  |  |
| _   |   | Olympia Conducting Polymers? Discuss about Intrinsic Conducting Polymers with application      | s. 7M    |  |  |
| 9.  | a)  | Distinguish between thermoplastic and thermosetting plastics.                                  | 7M       |  |  |
|   | b)  | Distrikaran octwoon monacharan   | :        |  |  |