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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech I Year I Semester Regular Examinations December 2018

CHEMISTRY

(ECE)

Time: 3 hours

Max. Marks: 60

PART-A

(Answer all the Questions 5 x 2 = 10 Marks)

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|---|---|----|
| 1 | a Define hardness of water & classify. | 2M |
| | b Define aromaticity and anti aromaticity | 2M |
| | c What are inhibitors? Give examples. | 2M |
| | d What are thermoplastics & thermosetting plastic? | 2M |
| | e What are chromophores & auxochromes? Give examples. | 2M |

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

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|---|--|----|
| 2 | Explain the following. | |
| | a Crystal field theory. | 5M |
| | b Energy level diagram of carbon monoxide. | 5M |

OR

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|---|---|----|
| 3 | a Derive Schrodinger wave equation? | 7M |
| | b Give the significance of Schrodinger wave equation. | 3M |

UNIT-II

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| 4 | a Give an account on Oxidation & reduction reactions. | 5M |
| | b Write a note on sacrificial anodic protection. | 5M |

OR

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| 5 | Explain the various factors influencing rate of corrosion. | 10M |
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UNIT-III

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| 6 | Explain the following. | |
| | a Electro dialysis. | 5M |
| | b Reverse osmosis. | 5M |

OR

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| 7 | Describe the Ion exchange process for demineralization of water? What are the advantages and disadvantages of ion exchange process? | 10M |
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UNIT-IV

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| 8 | a Give an account on substitution reactions. | 5M |
| | b Give the preparation properties & uses of Bakelite. | 5M |

OR

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| 9 | a Explain synthesis of paracetamol. | 5M |
| | b Describe with a neat sketch the process of compression moulding. | 5M |

UNIT-V

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| 10 | Give an account on the principle and instrumentation of IR spectroscopy. | 10M |
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OR

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| 11 | a Explain the principle of UV spectroscopy. | 5M |
| | b Give a brief account on Beer lamberts law. | 5M |

END