

Reg. No:

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

B.Tech I Year II Semester Supplementary Examinations May-2022

APPLIED CHEMISTRY

(Common to CSE, CSIT, CSM & CIC)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

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|---|---|--|----|----|
| 1 | a | What is Electrochemical cell? Give an example. | L1 | 4M |
| | b | Write a note on Redox Titrations. | L2 | 4M |
| | c | Write a short note on Ni-cd (NICAD) battery. | L2 | 4M |

OR

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|---|---|--|----|----|
| 2 | a | What is primary Battery? Write a brief note on Zinc-Air battery. | L2 | 6M |
| | b | Write a note on Lithium Ion rechargeable cell. | L2 | 6M |

UNIT-II

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|---|---|---|----|----|
| 3 | a | Explain Planck's Quantum Theory. | L1 | 6M |
| | b | Explain Heisenberg Uncertainty principle. | L2 | 6M |

OR

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|---|---|--|----|----|
| 4 | a | Write the postulates of molecular orbital theory. | L1 | 4M |
| | b | Explain pi- molecular orbital of Benzene with a neat sketch. | L3 | 8M |

UNIT-III

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|---|---|---|----|----|
| 5 | a | Write a note on nomenclature of polymers. | L1 | 6M |
| | b | Explain the mechanism of anionic addition polymerization. | L3 | 6M |

OR

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|---|---|--|----|----|
| 6 | a | Describe the preparation, properties and uses of Nylon-6, 6. | L3 | 6M |
| | b | Write a note on Thermoplastic and Thermosetting resin. | L3 | 6M |

UNIT-IV

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|---|---|---|----|----|
| 7 | a | Write a note on atomic absorption and molecular absorption. | L1 | 6M |
| | b | Write any four applications of Gas Chromatography. | L1 | 6M |

OR

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|---|---|--|----|----|
| 8 | a | Distinguish between gas chromatography and High Performance Liquid Chromatography. | L4 | 6M |
| | b | Describe the various methods for separating the Liquid Mixtures? | L3 | 6M |

UNIT-V

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|---|---|--|----|----|
| 9 | a | Write a note on Liquid Insulating Materials. | L1 | 6M |
| | b | Write a short note on Complementarity. | L1 | 6M |

OR

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|----|---|---|----|----|
| 10 | a | What is meant by Nanomaterials? How is Nanomaterials Classified? Give the examples. | L3 | 6M |
| | b | Write a note on Fullerenes. | L1 | 6M |

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