

SREE VIDYANIKETHAN ENGINEERING COLLEGE

(An Autonomous Institution, Affiliated to JNTUA, Ananthapuramu)

I B.Tech II Semester (SVEC-19) Regular Examinations, December - 2020**BIOLOGY FOR ENGINEERS****[Civil Engineering, Mechanical Engineering, Computer Science and Engineering,
Information Technology, Computer Science and Systems Engineering]****Time: 3 hours****Max. Marks: 60****Answer One Question from each Unit
All questions carry equal marks****UNIT-I**

- | | | | | | |
|------|--|----------|----|-----|-----|
| 1. | Compare biological organisms with man-made systems. | 12 Marks | L2 | CO1 | PO1 |
| (OR) | | | | | |
| 2. | a) Explain the differences between prokaryotes and eukaryotes. | 6 Marks | L2 | CO1 | PO1 |
| | b) Classify living organisms basing on carbon and energy source. | 6 Marks | L2 | CO1 | PO1 |

UNIT-II

- | | | | | | |
|------|---|----------|----|-----|-----|
| 3. | Describe the structure and functions of proteins. | 12 Marks | L1 | CO1 | PO1 |
| (OR) | | | | | |
| 4. | a) Explain chemical composition of nucleic acids. | 6 Marks | L2 | CO1 | PO1 |
| | b) Explain fermentation and its applications. | 6 Marks | L2 | CO3 | PO6 |

UNIT-III

- | | | | | | |
|------|--|----------|----|-----|-----|
| 5. | Explain law of Independent Assortment with dihybrid cross. | 12 Marks | L2 | CO2 | PO1 |
| (OR) | | | | | |
| 6. | Describe the mechanism of DNA replication. | 12 Marks | L1 | CO1 | PO1 |

UNIT-IV

- | | | | | | |
|------|--|----------|----|-----|-----|
| 7. | Explain the process of rDNA technology. | 12 Marks | L2 | CO3 | PO6 |
| (OR) | | | | | |
| 8. | a) Explain the role of biosensors and biochips. | 6 Marks | L3 | CO3 | PO1 |
| | b) Analyze the pros and cons of transgenic microbes. | 6 Marks | L4 | CO3 | PO6 |

UNIT-V

- | | | | | | |
|------|--|----------|----|-----|-----|
| 9. | Explain human digestive system with labeled diagram. | 12 Marks | L2 | CO1 | PO1 |
| (OR) | | | | | |
| 10 | Explain DNA fingerprinting. | 12 Marks | L2 | CO3 | PO6 |

