

Reg. No: 

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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**

(AUTONOMOUS)

**B.Tech IV Year II Semester Regular & Supplementary Examinations July-2021****FOOD PROCESSING PLANT DESIGN AND LAYOUT**

(Agricultural Engineering)

Time: 3 hours

Max. Marks: 60

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

**UNIT-I**

- |   |   |    |    |
|---|---|----|----|
| 1 | a Explain the objectives of plant layout.                           | L1 | 4M |
|   | b Write about principles of plant layout.                           | L3 | 4M |
|   | c Write in detail about salient features of maize processing plant. | L4 | 4M |

**OR**

- |   |   |    |    |
|---|---|----|----|
| 2 | a Explain in detail about the fruit processing plant. | L3 | 6M |
|   | b Explain factors in planning layout.                 | L2 | 6M |

**UNIT-II**

- |   |   |    |    |
|---|---|----|----|
| 3 | a Explain different selection processes.                              | L3 | 6M |
|   | b Write in detail about salient features of poultry processing plant. | L4 | 6M |

**OR**

- |   |  |    |    |
|---|--|----|----|
| 4 | a Write different materials required for construction of plant layout. | L4 | 4M |
|   | b Briefly explain the safety factors in plant layout.                  | L4 | 8M |

**UNIT-III**

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|---|---|----|----|
| 5 | a Explain about process design development with suitable diagram. | L4 | 6M |
|   | b Write about factors affecting profitability of investment.      | L3 | 6M |

**OR**

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|---|---|----|----|
| 6 | a Explain about optimum design consideration in operation.                    | L3 | 6M |
|   | b Write in detail about practical consideration in designing project systems. | L3 | 6M |

**UNIT-IV**

- |   |  |    |    |
|---|--|----|----|
| 7 | a Draw qualitative and quantitative flow diagrams of food processing layout. | L3 | 6M |
|   | b Explain about literature survey and energy balance.                        | L3 | 6M |

**OR**

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|---|---|----|----|
| 8 | a Write in detail about equipment design with suitable example. | L3 | 6M |
|   | b Write about the factors of handling equipment's.              | L3 | 6M |

**UNIT-V**

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|---|--|----|----|
| 9 | a Explain pollution control and air pollution act briefly. | L3 | 6M |
|   | b Write briefly about recycling.                           | L3 | 6M |

**OR**

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|----|---|----|----|
| 10 | a Write the advantages and disadvantages of CIP.        | L3 | 6M |
|    | b Write in detail of factors affecting production cost. | L4 | 6M |

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