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

B.Tech III Year I Semester Regular Examinations December-2021

FARM MACHINERY & EQUIPMENT-II

(Agricultural Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

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|----------|---|-----------|-----------|
| 1 | a Explain in briefly about manual harvesting using sickle. | L5 | 6M |
| | b Explain in briefly about cutter bar of mower with neat sketch. | L1 | 6M |

OR

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|----------|--|-----------|-----------|
| 2 | a Distinguish between registration and alignment? | L4 | 6M |
| | b What are the different types of impact cutter? | L1 | 6M |

UNIT-II

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|----------|---|-----------|-----------|
| 3 | a Is combine harvester required for present day farmer? Why? | L1 | 6M |
| | b What are the advantage and disadvantage of combine? | L1 | 6M |

OR

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|----------|---|-----------|-----------|
| 4 | a Explain working principle of self-propelled type combine with neat sketch | L1 | 6M |
| | b How many hectares per day of 12 h can be cut by a combine with 4 m cutter bar, when it is running at 4 km/h. Calculate the total time required to harvest 2.5 ha of grass by means of a 2 m mower being operated at 4 km/h. Take field efficiency of mower as 80%. | L6 | 6M |

UNIT-III

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|----------|---|-----------|-----------|
| 5 | a Explain in briefly about different methods of fruit harvesting. | L5 | 6M |
| | b Explain in briefly about manual fruit harvesters with panicle for mango. | L1 | 6M |

OR

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| 6 | Distinguish between groundnut digger shaker and potato harvester? With neat diagram. | L4 | 12M |
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UNIT-IV

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| 7 | a What are the factors affecting the performance of cotton pickers? | L1 | 6M |
| | b Illustrate about cotton picker with chain belt spindle arrangement with neat sketch? | L2 | 6M |

OR

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|----------|---|-----------|-----------|
| 8 | a Explain in briefly about advantages of strippers over pickers and principles of operation of stripper. | L5 | 6M |
| | b Why cotton harvesters could not be used in India? | L1 | 6M |

UNIT-V

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|----------|--|-----------|-----------|
| 9 | a Define threshing. Explain about different types of cylinder. | L1 | 6M |
| | b How do you make cylinder adjustment of thresher? Explain the factors affect threshing efficiency? | L1 | 6M |

OR

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| 10 | Write short notes on i) Cleaning unit ii) Seed damage iii) Aspirator & Blower. | L2 | 12M |
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