Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **18AT2034** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FARM MACHINERY AND POWER** | **Max. Marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
| **PART – A (20 X 1 = 20 MARKS)** | | | |
| 1. | Manufacturing of tractor was started in India during \_\_\_\_\_\_\_\_\_ year. | CO1 | 1 |
| 2. | Mention the types of mould boards. | CO2 | 1 |
| 3. | Brief about Scavenging. | CO2 | 1 |
| 4. | Define Field efficiency. | CO3 | 1 |
| 5. | Define Side draft. | CO1 | 1 |
| 6. | Mention the types of Double action disc harrow. | CO2 | 1 |
| 7. | Brief about Check row planting. | CO3 | 1 |
| 8. | Mention the type of furrow openers used in seed drill or planter. | CO2 | 1 |
| 9. | Define Weeding efficiency. | CO3 | 1 |
| 10. | Mention the main function of sprayer. | CO3 | 1 |
| 11. | What is a spray lance? | CO2 | 1 |
| 12. | Define Swath. | CO1 | 1 |
| 13. | What is a Pitman? | CO1 | 1 |
| 14. | Mention the types of threshing drum. | CO2 | 1 |
| 15. | What is Blower loss? | CO3 | 1 |
| 16. | What is Radiator? | CO2 | 1 |
| 17. | What is Spark plug? | CO1 | 1 |
| 18. | What is Ground Clearance? | CO1 | 1 |
| 19. | What is a Clutch? | CO1 | 1 |
| 20. | Mention the special function of the differential unit in tractor. | CO3 | 1 |

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| **PART – B (10 X 5 = 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | Mention the merits and demerits of animal power. | CO1 | 5 |
| 22. | Explain about final drive. | CO2 | 5 |
| 23. | A 3 x 30 cm plough is moving at a speed of 4 km/h. Calculate how much time it take to plough 500 x 500 m field when the field efficiency is 70 %. | CO3 | 5 |
| 24. | Write a note on jointer and coulter. | CO2 | 5 |
| 25. | Describe offset disc harrow. | CO3 | 5 |
| 26. | Write about cup feed mechanism. | CO2 | 5 |
| 27. | Describe the type of spray based on volume. | CO3 | 5 |
| 28. | Explain the alignment of the mower. | CO2 | 5 |
| 29. | Write notes on Thresher losses. | CO3 | 5 |
| 30. | Describe depreciation. | CO3 | 5 |
| 31. | Write briefly the piston ring with their functions. | CO2 | 5 |
| 32. | Explain implement depth control in the mounted implement. | CO3 | 5 |

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| **PART – C (2 X 15 = 30 MARKS)**  **(Answer any 2 from the following)** | | | | |
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| 33. | a. | Describe in detail the working principle of friction clutch with neat sketch. | CO2 | 15 |
| b. | Explain the Continuous ploughing method with neat sketch. | CO2 |
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| 34. | a. | Explain the adjustment of mould board plough. | CO2 | 15 |
| b. | Write about calibration of seed drills. | CO3 |
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| 35. | a. | Explain the working principle of rocker sprayer. | CO3 | 15 |
| b. | Explain the steps involved in the cost of operation calculation for operation of farm machinery. | CO1 |