

314302

24225

3 Hours / 70 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following :** **10**
- a) State any two merits and demerits of farm mechanization.
 - b) Define contour ploughing.
 - c) Name primary and secondary tillage equipments.
 - d) Enlist any two functions of planter.
 - e) Define a Nozzle and state its main components.
 - f) State the components of mower.
 - g) Elaborate the term windrow and windrower.
- 2. Attempt any THREE of the following :** **12**
- a) Enlist various limiting factors in farm mechanization.
 - b) Define farm mechanization. Explain the scope of farm mechanisation.
 - c) Explain different sources of farm power in India.
 - d) Describe tillage with its main objectives.

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- 3. Attempt any THREE of the following :** **12**
- a) Explain the different components of a MB plough with neat labelled diagram.
 - b) Differentiate between theoretical field capacity and actual field capacity.
 - c) Describe seed drill and write the functions of seed drill.
 - d) Explain in details various components of seed drill.
- 4. Attempt any THREE of the following :** **12**
- a) Enlist salient features of zero till drill.
 - b) Describe in details seed cum fertilizer drill.
 - c) Explain the differences between sprayer and duster.
 - d) Explain the different components of a power sprayer.
 - e) Explain the working of centrifugal pump used in sprayer.
- 5. Attempt any TWO of the following :** **12**
- a) Explain –
 - i) Theoretical field capacity.
 - ii) Effective field capacity
 - iii) Field efficiency
 - b) Explain different types of mower.
 - c) Describe the components working principle and functions of a combine harvester thresher.
- 6. Attempt any TWO of the following :** **12**
- a) Explain –
 - i) Paddy thresher
 - ii) Power thresher
 - b) What is seed metering mechanism ? Explain the working of fluted feed type and Internal double run type mechanism.
 - c) Explain different types of dusters in details.
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