

17580

11819

3 Hours / 100 Marks

Seat No.

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- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data, if necessary.
 - (5) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following: **20****
- a) What are the objectives of farm mechanizations?
 - b) Define tillage. State its benefits.
 - c) Explain concept of field capacity and efficiency.
 - d) List various sowing and planting equipment.
 - e) Write the uses of following :-
 - (i) Trencher
 - (ii) Elevators
 - f) Explain the construction and adjustment of impact type cutting mechanism.
 - g) Explain trouble shooting and precaution necessary for Olpad thresher.

P.T.O.

- 2. Attempt any TWO of the following:** **16**
- a) Explain repair and maintenance method of Animal and tractor driven harrow.
 - b) How cost of operation of farm machine is calculated? Explain with one example.
 - c) Explain construction details of strip fill drill raised bed planting machine.
- 3. Attempt any TWO of the following:** **16**
- a) Explain construction and working and use of Bulldozer with neat sketch.
 - b) What are the factors to be considered while selecting plant protection equipment? Also write safety precautions to be followed.
 - c) (i) Compare shear and impact type cutting mechanisms.
(ii) Prepare a trouble shooting chart for windrower and Reaper.
- 4. Attempt any TWO of the following:** **16**
- a) (i) Distinguish between primary tillage equipment and secondary tillage equipments.
(ii) State the factor affecting draft.
 - b) Discuss status of farm mechanisation in India. What is the scope available for its development?
 - c) Explain with neat sketch paddy thresher. Write method of flow path adjustment.

- 5. Attempt any TWO of the following:** **16**
- a) How draft measurement is performed for tillage equipment? Also explain forces acting on tillage tools.
 - b) Write the function of plant protection equipment. Explain adjustment of sprayer and duster in brief.
 - c) Explain construction and working of potato and ground nut digger with neat sketch.
- 6. Attempt any TWO of the following:** **16**
- a) Explain maize harvesting and shelling equipment with neat sketch.
 - b) What is zero fill ferti drill? How seed drill is calibrated? Explain.
 - c) (i) Explain the term hitching of plough.
(ii) Explain hitching system and controls.
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