



17580

14115

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) *Mobile Phone, Pager and **any other** Electronic Communication devices are **not** permissible in Examination Hall.*

MARKS

1. Attempt **any five** :

20

- Define farm mechanisation. State its advantages and limitations.
- Explain the concept of field capacity and efficiency.
- Explain Hitching systems and controls.
- Write function of earth moving equipment. Explain principle of trencher.
- Explain construction and working of potato and Groundnut Digger.
- Explain trouble shooting and precaution necessary for paddy thresher.
- Write function of planters. State its types.

2. Attempt **any two** :

16

- Discuss status of Farm mechanisation in India. What is the scope available for its development ?
- State benefits of tillage. Explain M.B. Plough and its working with sketch.
- Write principle of Disc plough. Explain its construction and adjustments with sketch.

P.T.O.

**MARKS**

3. Attempt **any two** : **16**
- a) Draw a sketch of tractor driven harrow. Explain its construction, adjustments and repairs maintenance.
 - b) Write procedure of selection of farm machines. How cost of operation of farm machines is calculated ? Explain with one example.
 - c) Explain forces acting on tillage tools. How draft measurement is performed for tillage equipment ?
4. Attempt **any two** : **16**
- a) Explain working of seed-cum fertilizer drill with sketch. Explain size metering devices.
 - b) Explain construction, working and use of Bulldozer with sketch.
 - c) Write factors considered while selecting plant protection equipment. Discuss safety precautions to be followed.
5. Attempt **any two** : **16**
- a) Explain working principle of field Forage Harvester. Write working adjustment and flow path adjustment procedure.
 - b) Explain Olpad thresher with sketch. Write method of flow path adjustment.
 - c) Explain maize harvesting and shelling equipment with sketch.
6. Attempt **any two** : **16**
- a) Explain principle of cutting by Mower. Explain its adjustments and trouble shooting.
 - b) Discuss function and adjustment of sprayer and duster.
 - c) Explain self propelled paddy transplanter with sketch. State its advantages over manual method.
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