

22398

22232

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Figures to the right indicate full marks.
 - (3) 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) Classify internal combustion engines.
- (b) Enlist any four advantages of farm power.
- (c) Enlist the four strokes of compression ignition engine.
- (d) Write any four functions of tractors.
- (e) Give any four properties of good fuel.
- (f) State any four purposes of lubrication system.
- (g) Write any two functions of gear box used in tractor system.

2. Attempt any THREE of the following :

12

- (a) Explain the procedure to calculate operating cost of tractor.
- (b) Differentiate between fixed cost and variable cost.
- (c) Explain any four criteria for tractor selection.
- (d) State the types of systems in a tractor & explain any one in detail.



- 3. Attempt any THREE of the following : 12**
- (a) Explain construction and working of fuel supply system in tractor with neat sketch.
 - (b) Describe working of water cooling system with neat sketch.
 - (c) Enlist lubrication systems in tractor and explain splash lubrication system.
 - (d) Differentiate between petrol fuel supply and diesel fuel supply system in tractor.
- 4. Attempt any THREE of the following : 12**
- (a) Explain construction and working of centrifugal governor with neat sketch.
 - (b) Explain working of hydraulic steering system in tractor.
 - (c) Explain Magneto ignition system used in tractor engine.
 - (d) Explain the following terms :
 - (i) Governor Regulation
 - (ii) Governor hunting
 - (e) Explain construction and working of friction clutch with neat diagram.
- 5. Attempt any TWO of the following : 12**
- (a) Explain construction & working of synchromesh gear box.
 - (b) State the functions of clutch. Explain working of single plate clutch with neat sketch.
 - (c) What is the importance and purpose of final drive ? Explain working of final drive.
- 6. Attempt any TWO of the following : 12**
- (a) Explain the functions and requirements of braking system.
 - (b) Enlist different types of tractor control & explain any four.
 - (c) Describe importance of PTO and drawbar in tractor.
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