

22398

12425

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) Assume suitable data, if necessary.
 - (6) 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) Enlist component of engine (any four).
- (b) Define fixed cost in tractor.
- (c) Differentiate between two stroke & four stroke engine (any two).
- (d) Enlist two cooling agents used in tractor.
- (e) State any two functions of clutch.
- (f) Define carburation.
- (g) Give various sources of farm power available (any four).

2. Attempt any THREE of the following :

12

- (a) Explain detailed classification of governor.
- (b) Explain necessity of steering system in tractor.
- (c) Explain classification of tractor based on utility and structural design.
- (d) Explain characteristics of good fuel.



- 3. Attempt any THREE of the following : 12**
- (a) Explain various components used in lubrication system.
 - (b) Describe working of ignition system in tractor.
 - (c) Explain working of water cooling system in tractor.
 - (d) Write notes on following :
 - (1) Governor Flunting
 - (2) Governor Regulation
- 4. Attempt any THREE of the following : 12**
- (a) Describe the procedure to calculate operating cost of tractor.
 - (b) Explain working of fuel supply system in tractor.
 - (c) Differentiate between fixed circulation and splash lubrication system.
 - (d) Explain any four criteria for tractor selection.
 - (e) Write note on power transmission system in tractors.
- 5. Attempt any TWO of the following : 12**
- (a) Explain working of differential unit with neat sketch.
 - (b) Enlist type of brake used in tractor and explain any one in detail.
 - (c) Explain construction & working of synchromesh gear box.
- 6. Attempt any TWO of the following : 12**
- (a) Explain necessity of clutch in tractor & describe its working.
 - (b) Write note on following :
 - (i) PTO (power tractor of shaft)
 - (ii) Drawbar in tractor
 - (c) Enlist different tractor control system and explain any one in detail.
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