

- Q.28 Define caster and camber angle along with its importance in tractor front tyre.
  - Q.29 What should be the pre starting and daily check-ups for tractor?
  - Q.30 Write down different factors that affect the tractor traction.
  - Q.31 What are the safety measures should be adopted during field operation of the tractor?
  - Q.32 Write a short note on power steering system.
  - Q.33 Write a short note on sliding mesh type gearbox.
  - Q.34 Write down various components of power train along with their uses.
  - Q.35 Write a short note on scope of farm mechanization in India

## **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Describe the functions and constructional details of differential and differential lock.

Q.37 Describe various types of brakes used in the tractor.

Q.38 Explain the working of electrical system of a tractor along with its components. Also write down some care and maintenance tips for the tractor battery.

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**5th Sem / Agri  
Subject:- Farm Tractor**

Time : 3Hrs. M.M. : 100

## **SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 For standard RPM of 1000 of PTO shaft, splines in PTO shaft is

  - a) 6
  - b) 18
  - c) 21
  - d) 24

Q.2 Inflation pressure of front tyre of a tractor is always \_\_\_\_\_ than the rear tyre.

  - a) Less
  - b) More
  - c) Negative
  - d) None of these

Q.3 The ratio of output power to input power for a traction device is called

  - a) Tractive efficiency
  - b) Mechanical efficiency
  - c) Thermal efficiency
  - d) None of these

Q.4 Bull gear in the tractor is associated with

  - a) Front wheel
  - b) Final drive
  - c) Steering wheel
  - d) Gearbox

- Q.5 What are the traction aids  
 a) Cage wheel      b) Chain  
 c) Dual wheel      d) All of these
- Q6 The power required to run the engine at any given speed without production of useful work is called  
 a) Drawbar power      b) Indicated power  
 c) PTO power      d) Friction power
- Q.7 Weight transfer of tractor is directly affected by  
 a) Pull      b) Hitch height  
 c) center of gravity      d) All of these
- Q8 The gear train which provides the different speeds to drive the wheels, while moving on turn is called as  
 a) Differential      b) Bull gear  
 c) Differential lock      d) Main gear box
- Q.9 Ballasting in front tyre of tractor is done for  
 a) Increasing stability      b) Decreasing load  
 c) Increasing traction      d) All of these
- Q.10 The force required in the direction of travel to overcome the resistance of motion  
 a) Traction      b) Rolling resistance  
 c) Tractive efficiency      d) None of these

### **SECTION-B**

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 To compensate wearing of clutch friction lining \_\_\_\_\_ is done.

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- Q.12 ASAE stands for \_\_\_\_\_
- Q.13 Define tractor.
- Q.14 Define depreciation.
- Q.15 \_\_\_\_\_ device used to engage and disengage the engine power to the gear box.
- Q.16 Enlist control gauges of tractor.
- Q.17 Enlist the sources of farm power.
- Q.18 Wheel slip.
- Q.18 Write functions of drawbar.
- Q.20 \_\_\_\_\_ acts as buffer between the vehicle and the road.

### **SECTION-C**

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 What are the factors to be considered for right selection of a tractor?
- Q.22 Describe the various causes of tyre wear.
- Q.23 Enlist different types of steering gearboxes.
- Q.24 What is the basic principle of hydraulic system?
- Q.25 Names of major testing and evaluation centers in India for Agricultural Machinery.
- Q.26 List of various control system of tractor along with their function.
- Q.27 Explain the working of dual plate clutch system used in tractor.

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