

- Q.27 What is the importance of testing of Agricultural Machinery?
- Q.28 List of various gauges in the tractor along with their uses.
- Q.29 Define the traction efficiency. Also write down various factors that affect the traction efficiency.
- Q.30 Write down the concept of toe-in and toe-out.
- Q.31 Explain the working of mechanical brake system in tractor.
- Q.32 Write a short note on periodical maintenance of tractor.
- Q.33 Write a short note on ballasting including its type.
- Q.34 What should be the pre starting and daily check-ups for tractor?
- Q.35 Names of major testing and evaluation centers in India for Agricultural Machinery.

SECTION-D

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

- Q.36 Explain the principle and working of hydraulic system of tractor with neat sketch.
- Q.37 What is the procedure for estimating the cost of operation of a tractor?
- Q.38 Describe the complete power transmission system of a tractor with neat sketch.

No. of Printed Pages : 4 180153/120153/030153
Roll No.

5th Sem. / Agri. Engg.

Subject:- Farm Tractor

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Loss of value of a machine with passage of time is called
 a) Hiring cost b) Interest
 c) Ply rating d) Depreciation
- Q.2 The useful life of the tractor is
 a) 8,000 hours b) 10,000 hours
 c) 12,000 hours d) 15,000 hours
- Q.3 Which of the following eases the driver's effort in steering the tractor?
 a) Negative caster b) Positive caster
 c) Negative camber d) Positive camber
- Q.4 In most of Indian tractors brake works on the principle of
 a) Friction b) Vibration
 c) Suction d) Kinetic energy

Q.5 The standard RPM for 21 splines PTO shaft is

- a) 540 ± 10
- b) 840 ± 10
- c) 1000 ± 10
- d) 1200 ± 10

Q.6 Ballasting in rear tyre if tractor is done for

- a) Decreasing traction
- b) Increasing traction
- c) Prevent overturning
- d) All of these

Q.7 _____ is an index of the tyre strength.

- a) Tire rating
- b) Ply rating
- c) Ballasting
- d) All of these

Q.8 Drawbar pull is measured by the

- a) Brake dynamometer
- b) Prony brake dynamometer
- c) Hydraulic dynamometer
- d) All are correct

Q.9 _____ is used to connect steering arms on front wheel of tractor.

- a) King Pin
- b) Tie rod
- c) Stub axle
- d) None of these

Q.10 Water pump gets drive from _____ by means of belt pulley.

- a) Crank shaft
- b) Cam shaft
- c) Radiator shaft
- d) PTO shaft

SECTION-B

Note: Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$

Q.11 IHP of tractor is always _____ than the BHP.

Q.12 BIS stands for _____

Q.13 Cage wheel.

Q.14 Farm mechanization.

Q.15 Steering system.

Q.16 Tractive efficiency.

Q.17 Write two functions of clutch.

Q.18 Differential lock.

Q.19 Inflation pressure of front tyre of a tractor is _____

Q.20 ROPS stands for _____

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$

Q.21 Write short note on drawbar power and PTO power.

Q.22 Describe the various functions of tyre and also causes of tyre wear.

Q.23 Explain the power steering system.

Q.24 How would you maintain battery in a tractor?

Q.25 Write down different components of electrical system along with their function.

Q.26 Describe three-point linkage.