

- Q.17 What is differential and differential lock ? (CO2)
- Q.18 Explain the concept of toe in and toe out. (CO2)
- Q.19 How would you maintain battery ? (CO3)
- Q.20 Describe the various functions of tyre and also write causes of tyre wear . (CO2)
- Q.21 Explain the working of power steering system. (CO2)
- Q.22 Write advantages and disadvantages of farm mechanization (CO1).

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Describe the procedure for estimating the cost of operation of a tractor. (CO4)
- Q.24 Explain function and working of constant mesh gear box system of tractor with neat sketch . (CO2)
- Q.25 Explain the working principle of hydraulic system of a tractor along with its components, (CO2)

No. of Printed Pages : 4

220153

Roll No. ....

**5th Sem / Agri. Engg.**

**Subject : Farm Tractor**

Time : 3 Hrs.

M.M. : 60

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The loss of value of a machine with the passage of time is called \_\_\_\_\_. (CO4)
- a) Depreciation                      b) Ply rating
- c) Hiring cost                        d) Interest
- Q.2 A device is used to control the engine speed within specific limit is called . (CO2)
- a) Differential                        b) Radiator
- c) Governor                          d) Carburetor
- Q.3 Weight transfer of tractor is directly affected by
- a) Hitch height                      b) pull (CO2)
- c) Wheel base                        d) Both a & b

Q.4 Drawbar pull is measured by the (CO2)

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

Q.5 In lead -acid battery of tractor the negative plate is made up of \_\_\_\_\_. (CO3)

- a)  $\text{PbO}_2$
- b)  $\text{H}_2\text{SO}_4$
- c)  $\text{PbSO}_4$
- d)  $\text{Pb}$

Q.6 Northern Region Farm Machinery Training and Testing Institute (NRFMTTI) is situated at \_\_\_\_\_.

- a) Garladinne, Andhra Pradesh (CO4)
- b) Budni, Madhya Pradesh
- c) Hisar, Haryana
- d) All of these

## SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 ASTM stands for \_\_\_\_\_. (CO4)

Q.8 \_\_\_\_ is an index which shows the tyre strength. (CO4)

Q.9 Define Power train. (CO2)

Q.10 Write function of cage wheel. (CO2)

Q.11 Write sources of farm power. (CO1)

Q.12 Define wheel slip. (CO4)

## SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Describe the factors to be considered for right selection of a tractor. (CO4)

Q.14 Write a short note on wheel ballasting including its types. (CO2)

Q.15 What should be the pre starting and daily check-ups for tractor? (CO4)

Q.16 What are the safety measures to be adopted by driver during the operation on tractors? (CO4)