

- 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  
Roll No. ....

220153

**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) PbO<sub>2</sub>
- b) H<sub>2</sub>SO<sub>4</sub>
- c) PbSO<sub>4</sub>
- d) Pb

Q.6 Northern Region Farm Machinery Training and Testing Institute (NRFMTTI) is situated at \_\_\_\_\_. (CO4)

- a) Garladinne, Andhra Pradesh
- 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)