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**6th Sem. / Auto Engg.**

**Subject : Tractor & Special Purpose Vehicles**

Time : 3 Hrs.

M.M. : 100

### **SECTION-A**

**Note:**Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1
- a) Classification of tractor according to transmission and Power?
  - b) Write main components of steering system of tractor?
  - c) Define weight performance?
  - d) What is final drive?
  - e) What is the purpose of reduction gear in a tractor?
  - f) What is the PTO shaft in a tractor?
  - g) Define specification of tyre with example?
  - h) What is the purpose of differential lock in a tractor?

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- i) Why big and small tyres are used in tractor?
- j) Name components of hydraulic system?
- k) Define draft control.
- l) What is the Hydraulic pitch in a tractor.
- m) What is the purpose of front end loader in a tractor?
- n) What is the purpose of layshaft in a tractor.
- o) Write type of brake used in a tractor?
- p) Write material used for tyres of a tractor?
- q) What is the purpose of cranes?
- r) Write main faults of clutch in a tractor.

### **SECTION-B**

**Note:**Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) Write main applications of a tractor?
  - ii) What type of engines are used in tractor. Explain working of any one.
  - iii) Name type of clutch used in a tractor. Explain any one.

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- iv) Explain transmission system buyout in a tractor?
- v) What is the purpose of draw bar in a tractor? Explain its working?
- vi) Explain trad design of tyres of a tractor?
- vii) Write main effects of tyre inflation?
- viii) Write main functions of Hydraulic system?
- ix) Write main uses of hydraulic control system?
- x) Write main purposes & uses of Bulldozer?
- xi) What is the purpose of CVT transmission system used in transmission. Explain its working.
- xii) Write main faults & their rectification of Hydraulic system of a tractor?
- xiii) What is the selection criteria of a tractor? Explain it?
- xiv) What are various methods of attaching implements?
- xv) Explain working of double clutch system?

## SECTION-C

**Note:** Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Write classifications of tractors?
- Q.4 Explain tractor brake system used in a tractor.
- Q.5 Draw layout for hydraulic system. Explain their functions?
- Q.6 Explain working of belt pulley three point linkages.
- Q.7 Write short note on any two
  - 1) Operator seat design.
  - 2) Dual tyres.
  - 3) Fire station vehicle.