SEVENTH SEMESTER B.TECH DEGREE EXAMINATION
(2013 Scheme)
AUTOMOBILE ENGINEERING
13.706.13 Tractors and Farm Equipments (U)

Time: 3 Hours
Max. Marks: 100

PART- A
(Answer all questions. Each question carries 2 Marks)

1. What is the use of power Take off unit in a tractor?
2. Derive the efficiency equation for the engine, which is preferred in a Tractor?
3. Write short note on gear box of a tractor?
4. Describe the lubricating system of tractors?
5. What you meant by Engine Balancing?
6. Enumerate some implements used in a farm tractor?
7. Describe the final drive in tractors?
8. What is tire ballasting? Explain?
9. What is Baler?
10. Why there is no suspension in a Tractor?

(10 x 2 = 20 Marks)

PART- B
(Answer any one question from each Module. Each full question carries 20 Marks)

MODULE – 1

11 A) How Tractors are classified?

B) Narrate the safety rules to be considered while handling Tractors?

OR

12 A) With neat sketch explain the wheeled tractor?

B) Explain the hydraulic system used in a tractor?
MODULE – 2

13  A) What is meant by Haul distance? How it affects in selection of tractors?
    B) With the help of a neat diagram explain Layout of a Crawler Tractor?

    OR

14  A) How you will select a Tractor based on the type of soil?
    B) What are the basic rules for matching machines?

MODULE – 3

15  A) With the help of suitable diagrams explain the different types of Cooling systems used in tractors?
    B) Explain the DOHC Mechanism used in Tractor Engines?

    OR

16  A) Explain the different types of Air filters used in a tractor?
    B) with neat sketch explain the working of diaphragm type fuel pump?

MODULE – 4

17  A) Explain any three different types of trailers used in a tractor?
    B) With neat diagram explain the steering system in crawler tractor?

    OR

18  A) What are the factors affecting design of brake for a tractor?
    B) Explain the working of different types of clutches used in Tractors?

\[4 \times 20 = 80 \text{ Marks}\]