

B.E (AGRICULTURAL AND IRRIGATION ENGINEERING)

DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2011

VI SEMESTER**AI 9351 TRACTOR AND FARM EQUIPEMENT****(REGULATIONS 2008)****Time: 3 hrs****Total Marks: 100****Part A (10 x 2 = 20)****Answer All Questions**

1. What is air fuel ratio? How is it important?
2. How does a muffler work?
3. Explain the term scavenging?
4. What are the functions of a transmission system in a tractor engine?
5. How does a bull dozer work? List down its parts.
6. Explain shortly the types of power tillers.
7. What do you mean by 'conservation tillage'?
8. What are the different methods of threshing the food grains?
9. Write about any two non-conventional energy sources?
10. Draw and mark the parts of any primary tillage implement.

Part B (5 x 16 = 80)
(Question 11 is compulsory)

- 11(i) Explain the term governing using a sketch. (6)
- (ii) With suitable sketch explain the types of lubricating systems of a tractor. (10)
- 12(a)
- (i) What are the requirements of the clutch? Explain the different types of clutch. (9)
- (ii) List all the types of gears in tractor and explain any two types? (7)
- OR**
- 12 (b)
- (i) Explain the working of differential with neat sketches (8)
- (ii) Discuss how a steering system in a tractor works with a help of a diagram. (8)
- 13(a)
- (i) Explain the working of a bull dozer with its basic parts. (8)
- (ii) What are the different types of bull dozer? Explain their working principle. (8)

OR

- 13(b)
(i) Write in detail the special features of power tillers. (8)
(ii) Discuss the advantages of power tillers. (8)
- 14(a)
(i) Define primary tillage and secondary tillage. (4)
(ii) List down the implements used for both the tillage and explain them briefly. (12)

OR

- 14(b)
(i) Discuss in detail the inter-cultural implements and harvesting implements. (12)
(ii) Write briefly about sprayers and dusters. (4)
- 15(a)
(i) List down the different farm power sources and write merits and demerits of each of the farm sources. (16)

OR

- 15(b)
(i) Explain the different types of implement with respect to attachment and explain them? (8)
(ii) Define the terms related to field performance of machines (8)