

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Agriculture Engg.) (Sem.-4)

FARM POWER

Subject Code : BTAG405-19

M.Code : 80018

Date of Examination : 12-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) Discuss the significance of farm power units.
- b) Explain thermodynamic principles of IC engine.
- c) Discuss the role of cooling system in engines.
- d) What do you mean by combustion of fuels?
- e) What is meant by knocking in IC engine?
- f) What is coolant and give its properties?
- g) Discuss the role of engine valves and valve mechanism.
- h) Discuss the role of differentials in tractors.
- i) What is the purpose of belt and pulley on tractors?
- j) Discuss the application of anti-corrosion materials in IC engines.

SECTION-B

2. Discuss conventional energy sources of farm power and their utilization?
3. What is IC engine and discuss its classification?
4. Discuss the operating principles of fuel and air supply in farm power engines.
5. Discuss the properties of IC engine fuels.
6. Discuss various preventive measures to be considered for getting better performance of tractors.

SECTION-C

7. Discuss with suitable diagram the transmission systems of wheel and track type tractors.
8. What is the significance of tractor as farm power unit and give its classification?
9. Explain the various lubrication types with respect to IC engine fuels and discuss the study of their properties.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.