

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Summer 2018 - 19 Examination

Semester: 4
Subject Code: 03110253
Subject Name: Farm Power

Date: 03/05/2019
Time: 2:00pm to 4:30pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions - (All are compulsory) (Each of one mark) (15)

1. What is the stoichiometric ratio in petrol engine?
2. Write the full form of LNG.
3. What do you mean by Atomization?
4. Why piston rings are required?
5. What is the compression ratio in petrol engines?
6. Which of the following is the lightest and most volatile liquid fuel?
A) Diesel B) Kerosene C) Fuel oil D) Gasoline
7. The ignition quality of petrol is expressed by
A) Octane no B) Cetane no C) calorific value D) Heptane no
8. The loud pulsating noise heard within the cylinder of an internal combustion engine is known as
(A) Detonation (B) Turbulence (C) Pre-ignition (D) Supercharging
9. The camshaft of a four stroke I.C. engine running at 1000 rpm will run at
A. 1000 B. 500 C. 2000 D.1500
10. The theoretically correct air-fuel ratio for petrol engine is of order to
A. 6:1 B. 9:1 C. 15:1 D.20:1
11. Thermal efficiency of a two stroke cycle engine is _____ a four stroke cycle engine.
12. Number of working strokes per min. for a two stroke cycle engine is _____ the speed of the engine in r.p.m
13. _____ mixes the air fuel mixture in petrol engine.
14. Solar energy is a _____ source of energy.
15. During idling, a petrol engine requires _____ mixture.

Q.2 Answer the following questions. (Attempt any three) (15)

- A. Explain the valve timing diagram for a Petrol Engine with neat sketch.
- B. Write a note on classification of tractors.
- C. Enlist different sources of Farm Power and explain any one in detail.
- D. Enlist different types of IC engine fuels and their properties.

Q.3 A) Explain about Engine governing systems. (07)

- B) Enlist different types of Ignition system and explain any one in detail. (08)

OR

- B) Explain any two non conventional energy sources in detail. (08)

Q.4 A) Explain thermodynamic principle of SI Engine in detail. (07)

OR

- A) Explain different types of lubrication system and explain any one in detail. (07)

- B) Enlist different types of cooling system and explain any one in detail. (08)