Assignment 04

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Due on 2019-02-27, 23:59 IST.

1) Nozzles for injecting fuel are widely used in the --------------engines.

- CI engines
- CI and SI engines
- SI engines
- Can't say anything

No, the answer is incorrect.
Score: 0
Accepted Answers:
CI engines

2) Pintle nozzle is less susceptible to clogging since

- Plunger helps remove the clogging
- Turbulence of the combustion chamber helps sweeping away the carbon deposits
- Pintle nozzle does not have orifice
- There is separate arrangement to remove clogging.

No, the answer is incorrect.
Score: 0
Accepted Answers:
Plunger helps remove the clogging
Turbulence of the combustion chamber helps sweeping away the carbon deposits

3) Lubricating oil should not require excessive force to transfer the transverse momentum imparted by engine components.

- True

Score: 0
Accepted Answers:
A. I. losses due to turbulent dissipation in the intake and exhaust

B. II. Lack of hydraulic floating

C. III. Hydraulic shear between the engine lubricated parts

No, the answer is incorrect.
Score: 0

Accepted Answers:
a – II, b – I, c – III

5) Given the required characteristics of the lubricating oil, state which of those are correct and which are wrong

a. Lubricating oil must have adhesion with the solid surface.

b. This lubricating oil must resist being squeezed from the mating surfaces even under extreme forces experienced by the engine between some components.

No, the answer is incorrect.
Score: 0

Accepted Answers:
both a and b are correct

6) According to the working principle of battery ignition system, find the correct order from the following

Charging the condenser -> discharging the condenser -> breaker points are closed
Charging the condenser -> breaker points are closed -> discharging the condenser
Breaker points are closed -> charging the condenser -> discharging the condenser
Discharging the condenser -> charging the condenser -> breaker points are closed

No, the answer is incorrect.
Score: 0

Accepted Answers:
Breaker points are closed -> charging the condenser -> discharging the condenser

7) The empirical relation for frictional mean effective pressure is given by

\[ f_{mep} = A + BN^2 + CN^2 \]

\[ f_{mep} = A + BN^2 + CN \]

\[ f_{mep} = BN^2 + CN^2 - A \]

\[ f_{mep} = A + BN + CN^2 \]

No, the answer is incorrect.
Components of Brayton Cycle Based Power Plant

8) In the battery ignition system, the camshaft drives

- breaker points
- distributor
- condenser
- primary winding

Correct Answer: distributor

No, the answer is incorrect.
Score: 0
Accepted Answers: distributor

9) Identify the correct statements from the following two:

a. Single and multiple orifice type nozzles are used for non-turbulent type of combustion.
   - a is correct, b is wrong
   - a is wrong, b is correct
   - both a and b are correct
   - both a and b are wrong

Correct Answer: a is correct, b is wrong

No, the answer is incorrect.
Score: 0
Accepted Answers: a is correct, b is wrong

10) For better dispersion of fuel in the combustion chamber, we need ------------ injection pressure and ------------ density of compressed air.

Correct Answer: higher, higher

No, the answer is incorrect.
Score: 0
Accepted Answers: higher, higher