Assignment 02

Due on 2019-08-21, 23:59 IST.

1. In general, compared to the Steam Power Plant, the gas turbine power plant has _______ pressure ratio and _______ thermal efficiency. [1 point]
   - high, high
   - low, low
   - low, high
   - high, low

2. What is the power of interest? [1 point]
   - Shaft power
   - Electrical power
   - Heat input
   - None of the above

3. Choose the correct statement for steam turbine power plant, from the following? [1 point]
   - Work done does not change its place during operation
   - Work done is low compared to gas power plant
   - Thermal efficiency is less dependent on pumps and turbine efficiencies
   - Both external as well as internal combustion is possible

4. What is the power of interest? [1 point]
   - Shaft power
   - Electrical power
   - Heat input
   - None of the above

5. The mechanical efficiency of a gas turbine engine compared to reciprocating engine for the same power output is _______. [1 point]
   - High
   - Less
   - Equal
   - Can't tell

6. What is the power of interest? [1 point]
   - Shaft power
   - Electrical power
   - Heat input
   - None of the above

7. The compressor is _______. [1 point]
   - High efficiency, low starting pressure
   - Low efficiency, high starting pressure
   - High efficiency, high starting pressure
   - Low efficiency, low starting pressure

8. The heat input is _______. [1 point]
   - Low
   - High
   - Medium
   - Can't tell

9. The power of interest is _______. [1 point]
   - Shaft power
   - Electrical power
   - Heat input
   - None of the above

10. Which one is stated to correct regarding fuel system? [1 point]
    - Air enters from intake to the intake manifold with supercharged speed and subsonic combustion takes place.
    - Air enters from intake to the intake manifold with supercharged speed and supersonic combustion takes place in the combustion chamber.
    - Pressure ratio of intake manifold does not depend on its flight velocity.
    - Both a and c

11. What is the effect of the frequency of intake manifold? [1 point]
    - Shaft power
    - Electrical power
    - Heat input
    - None of the above

12. The power of interest is _______. [1 point]
    - Shaft power
    - Electrical power
    - Heat input
    - None of the above

13. Proportion of air in intake manifold is controlled by _______. [1 point]
    - Compressor
    - Ignition system
    - High pressure
    - None of the above

14. Which system is useful for high-speed and high-altitude applications? [1 point]
    - High pressure
    - Low pressure
    - Ignition system
    - High temperature

15. Throttling power to change kinetic energy between the inlet and exit. [1 point]
    - Propulsive efficiency is defined as the rate of
    - Propulsive power to thrust power
    - Thrust power to kinetic energy between the inlet and exit
    - None of the above

16. Throat power to change kinetic energy between the inlet and exit. [1 point]
    - Propulsive efficiency is defined as the rate of
    - Propulsive power to thrust power
    - Thrust power to kinetic energy between the inlet and exit
    - None of the above