

SCRIET 1st Sem. MECHATRONICS QUIZ

1. **In a diesel engine, the fuel is ignited by**
 - (a) spark
 - (b) injected fuel
 - (c) heat resulting from compressing air that is supplied for combustion
 - (d) ignition
 - (e) combustion chamber
2. **Scavenging air in diesel engine means**
 - (a) air used for combustion sent under pressure
 - (b) forced air for cooling cylinder
 - (c) burnt air containing products of combustion
 - (d) air used for forcing burnt gases out of engine's cylinder during the exhaust period
 - (e) air fuel mixture.
3. **The air standard efficiency of an Otto cycle compared to diesel cycle for the given compression ratio is**
 - (a) same
 - (b) less
 - (c) more
 - (d) more or less depending on power rating
 - (e) unpredictable
4. **1 Tonne = _____ KJ/s.**
 - a) 2.67
 - b) 1.087
 - c) 3.5
 - d) 232.6
5. **Efficiency of the Refrigerator is _____ to the C.O.P of refrigerator.**
 - a) inversely proportional
 - b) equal
 - c) independent
 - d) directly proportional
6. **If a condenser and evaporator temperatures are 225 K and 100 K respectively, then reverse Carnot C.O.P is _____**
 - a) 0.5
 - b) 1.5
 - c) 1.25
 - d) 1.75
7. **What do vertical and uniformly spaced lines indicate on the psychrometric chart?**
 - a) DPT
 - b) WBT

- c) DBT
- d) Specific humidity

8. Which one of the following is the unit of mass density?

- a) $\text{kg} = \text{m}^3$
- b) $\text{kg} = \text{m}^2$
- c) $\text{kg} = \text{m}$
- d) $\text{kg} = \text{ms}$

9. The specific volume of a liquid is the reciprocal of

- a) weight density
- b) mass density
- c) specific weight
- d) specific volume

10. Which one of the following is the unit of specific weight?

- a) $\text{N} = \text{m}^3$
- b) $\text{N} = \text{m}^2$
- c) $\text{N} = \text{m}$
- d) $\text{N} = \text{ms}$