

General Engineering (Mechanical) Paper 1 (2020-2021) Shift 1 (Memory Based)

- Poisson ratio is highest for which material _____?
A. Rubber B. Steel C. Cork D. Wood
- What will be the COP of a heat pump if Power input is 2 kW and heat supplied is 360 KJ/min?
A. 4 B. 3 C. 2 D. 1
- What will be the density of fluid if specific gravity is 0.7?
A. 7000 B. 700 C. 70 D. 7
- How many drums are used in a Benson boiler?
A. three B. two C. One D. Zero
- Which device is not used in the rankine cycle?
A. Compressor B. Condenser C. Turbine D. Pump
- In the VCRS cycle, the capillary tube is placed in between?
A. compressor and condenser B. Evaporator and compressor C. Condenser and evaporator D. sub cooler and condenser
- Diesel engine efficiency does not directly depend on _____.
A. Cutoff ratio B. Compression ratio C. specific heat ratio D. Pressure ratio
- In a locomotive boiler, draught is created by _____.
A. Steam jet B. Chimney C. Fan D. Blower
- Which of the following is not the unit of viscosity _____?
A. N-s/m² B. Poise C. m²/sec D. Pa-S
- What is the function of a carburettor _____?
A. to supply air only
B. to maintain Air fuel ratio
C. to supply fuel only
- Reversed _____ is used in gas refrigeration.

- A. Carnot B. Brayton C. Rankine D. Stirling
- Heat addition in the Otto cycle is at _____.
A. At constant pressure B. at constant volume C. at constant temperature D. at constant entropy
 - Use of flash chambers in the single VCRS _____.
A. increase refrigeration B. decrease refrigeration C. increase in power consumption
D. Decrease in power consumption
 - What is the value of jet ratio for a Pelton wheel?
A. 1 B. 2 C. 2 to 5 D. More than 6
 - What is the type of flow outside of the impeller?
A. free vortex flow B. forced vortex flow C. irrotational
 - Find the absolute and atmospheric pressure difference at the depth of 2 m in a water lake.
A. 1.96 kPa B. 19.62 kPa C. 0.196 kPa D. 196 kPa
 - What is the number of ports in a 2 stroke engine?
A. 0 B. 1 C. 2 D. 4
 - Air refrigeration is most commonly used in:
A. Automobiles B. Aircrafts C. Domestic refrigerator D. Chillers
 - For Newtonian fluid, what is the relation between shear stress and rate of shear strain?
A. Hyperbolic B. Parabolic C. Linear D. Inversely proportional
 - Kinematic viscosity is the ratio of _____?
A. dynamic viscosity and density B. dynamic viscosity and relative density
 - Babcock wilcox is a water tube boiler because _____.
A. water flows inside the tubes and surrounded by gases
B. water flows outside the pipes
C. Water and flue gases flow inside the tubes
D. water surrounds the flue gases flowing in tube
 - Impact load will be _____.
A. dynamic B. static C. compressive D. tensile
 - Chaplets in the casting are used for _____.
 - Foaming in a boiler occurs due to _____.
 - Where is the fusible plug located in the boiler?
 - Splash lubrication system cannot be used for _____.

- A. Piston rings B. Tappets C. Gears and bearings D. connecting rod
- Entropy can be increased by _____.
A. by heat B. mass
 - In which type of welding, coated electrodes are used?
A. Gas Tungsten arc welding B. Metal inert gas welding C. shielded metal arc welding D. Submerged arc welding
 - Which of the following is not the unit of pressure?
A. N/m² B. Pa C. Stoke D. bar
 - Smoke pattern from the lighter shows _____.
A. Streamline B. Streakline C. Pathline D. timeline
 - Properties flow at a point in steady flow is ____.
 - Power plants operate on which type of coal _____.
A. Anthracite B. Pulverised coal C. Lignite D. Peat
 - Velocity at the throat is _____ for maximum discharge condition.
A. Sonic B. Subsonic C. Supersonic D. Hypersonic
 - Venturi metres are used over orifice metres due to_____.
 - Which of the following is Direct flow measuring device
A. rotameter B. venturi metre C. Orifice metre D. disc type flowmeter
 - Governing of turbines is done to_____.
 - Which type of Impeller is used for handling mud typed fluid?
A. Open impeller type B. Single shrouded pump C. Double shrouded pump D. Double suction pump
 - What is the relation between discharge and speed of a turbine?
A. directly proportional speed
B. Inversely proportional to speed
C. directly proportional to square of speed
D. directly proportional to cube of speed
 - Laminar flow is which type of flow?
 - Which of the following assumptions made during analysis of IC engine air standard cycles?
 - Which of the following is not an intensive property?
A. Pressure B. Volume C. Temperature D. Density

- Which type of valve is used in reciprocating compressors _____?
A. Poppet B. Plate C. Disc D. Diaphragm
- What is the use of seat belts in cars?
- Steam quality can be increased at turbine outlets by _____.
A. Regeneration B. Reheating C. Subcooling D. Intercooling
- Nozzle is used to convert_____.
- If the value of dryness fraction is Zero, the state of fluid is_____.
A. Saturated vapour B. Saturated liquid C. Subcooled liquid D. Supercooled liquid
- Thermodynamics is defined as_____.

