WEEK WISE QUESTIONS

Subject Name-Concepts Of Mechanical Engineering -1

Subject Code-25ME11I Semester-1

WEEK-1

Select the correct answers from the choices given (MCQ Questions)

1. What is the unit of force in the SI system?
   a) dyne b) newton
   c) kilogram d) joule

2. SI unit of moment or torque is _____
   a) Nm b) N/m
   c) N d) W

3. Which system of units is the internationally recognized standard for scientific and technical measurements?
   a. CGS System b. SI System
   c. MKS System d. FPS System

4. What is the SI unit for work?
   a. Watt (W) b. Pascal (Pa)
   c. Newton (N) d. Joule (J)

5. Derived units can be expressed in terms of _____.
   a. Fundamental units b. Arbitrary units
   c. Base units d. Standard units

6. The fundamental units of SI system are the same as that of
   a. MKS System b. CGS System
   c. FPS System d. None of the above
7. What is the unit of velocity in the SI system?
   a) cm/s b) m/s
   c) n/s d) m/s^2
8. Convert 150 cm to meters.
   a) 15 m b) 1.5cm
   c) 0.15m d) 1.5m
9. SI Prefixe of Giga
   a) 10^7 b) 10^8
   c) 10^9 d) 10^6
10. Mechanical engineering is the branch of engineering that deals with
   a) measuring jaws b) designing, making, and maintaining machines
   c) medical,agriculture d) transport system

Fill in the blanks by choosing appropriate answer from those given in the bracket.

(Volume,Force,Gram Per Cc,Aerospace,Meter Per Second Square,Length)

1. Energy and work have the same SI unit because both involve _____ applied over a distance.
2. The unit of density in the CGS system is _____.
3. The amount of space occupied by an object is its _____
4. The SI unit of Acceleration is _____
5. _____ Is the Designing aircraft, spacecraft, and propulsion systems.
6. Distance from one point to another point is _____

IMPORTANT QUESTIONS

1. Write the SI Units for the following derived quantities: a) Acceleration b) Energy (2 Marks)
2. A car travels 90 meters in 6 seconds. Calculate its velocity and Acceleration (3 Marks)
3. Calculate the Pressure exerted when the Force of 150N is applied over an area of 0.5m^2. Express your answers in kPa. (5 Marks)
4. Define Least Count. (2 Marks)
5. For baking a cake at 356^0 F, what temperature should you set in your oven in Celsius (^oC)? Show the Conversion. (3 Marks)
6. A constant Force of 25N moves an object at a distance of 10m. Calculate the work done in Joules (J), Convert it into CGS and FPS units. (5 Marks)
7. Define Temperature. (2 Marks)
8. A small metal block has a mass of 400grams and dimensions of 4cm x 3cm x 2cm. Calculate the volume and density of the block. Represent in SI units. (3 Marks)
9. A machine performs 500 Joules of work in 5 seconds. Calculate the Power output in Watts (W), convert it into CGS and FPS System of units. (5 Marks)
10. Define CGS,MKS,FPS & SI Units. (5 Marks)