FBQ1: The frictional force in fluids is known as $\qquad$
Answer: *Viscosity*
FBQ2: The rise in the level of a liquid in a tube is h . If half the amount is poured outside, what will be the new rise in the liquid level?
Answer: *h*
FBQ3: Calculate the root-mean-square velocity of oxygen molecules at room temperature, 25 oC. Given that molar mass of oxygen and molar gas constant are 31. $9998 \mathrm{~g} / \mathrm{mol}$ and $8.3143 \mathrm{~J} / \mathrm{mol} \mathrm{K}$, respectively in meter per second.
Answer: *482.1*
FBQ4: Gases occupy volume of the $\qquad$ .
Answer: *container*
FBQ5: A perfectly ___ body is defined as one which emits every wavelength with the maximum energy for each wavelength for the particular temperature of the body. Answer: * black *

FBQ6: 3-vectors are only properly representedÂ in a 3-dimensional $\qquad$ .
Answer: *space*
FBQ7: The coefficient of limiting static friction is the ratio of the $\qquad$ to the normal force.
Answer: * frictional force*
FBQ8: An object is shot from the ground at $75 \mathrm{~m} / \mathrm{s}$ at an angle of 45 degrees above the horizontal. How high does the object get before beginning its descent?
Answer: *140 m*
FBQ9: If a force of 40 N acting in the direction due East and a force of 30 N is acting in the direction due North. Then the magnitude of the resultant forces will be

Answer: *50N*
FBQ10: A Null vector is a vector whose magnitude is $\qquad$ .
Answer: *zero*
FBQ11: The heat required to raise the temperature of the body through 1 K is called

## Answer: *heat capacity*

FBQ12: When an object is in thermal equilibrium, it is losing and gaining heat at $\qquad$ rates.
Answer: *equal*
FBQ13: The physical pendulum is any real pendulum in which all the mass is taken to be concentrated at a $\qquad$ .Â Answer: * point *

FBQ14: The $\qquad$ of oscillations of a particle in simple harmonic motion is damped by resistive forces due to the surrounding medium.
Answer: *amplitude*
FBQ15: What is the unit of impulse?
Answer: *Ns*
FBQ16: The $\qquad$ occurs when the driving frequency is the same as the natural frequency of the oscillator. Answer: *resonance*

FBQ17: Forces are called coplanar when all of them acting on body lie in one $\qquad$ . Answer: *plane*

FBQ18: The $\qquad$ of the instantaneous centre of a moving rigid body is called centroid. Answer: *locus*

FBQ19: The $\qquad$ is an aggregate of point masses such as that the relative separation between any two points remains invariant Answer: *rigid body*

FBQ20: The general motion of a rigid body is a combination of $\qquad$ and rotation. Answer: *translation*

FBQ21: The specific latent heat of vapourization of a liquid is the quantity of heat in joules required to change 1 kg mass of the liquid at its $\qquad$ to gas at the same temperature.
Answer: *boiling point*
FBQ22: Radius of $\qquad$ is the radial distance from any given axis at which the mass of a body is concentrated without changing the moment of inertia of the body about that axis.
Answer: *gyration*
FBQ23: $\qquad$ forces meet at one point and have their lines of action in different planes.
Answer: *non-coplanar current*
FBQ24: Applied force is proportional to extension produced is a statement of $\qquad$ law. Answer: *Hookeâ€ ${ }^{T M} s^{*}$

FBQ25: A $\qquad$ is the turning effect caused by a couple.
Answer: *torque*
FBQ26: A $\qquad$ consists of two equal and opposite parallel forces. Answer: *couple*

FBQ27: When a gas is allowed to expand at constant $\qquad$ the process is described
as isothermal.
Answer: *temperature*
FBQ28: The velocity of a particle moving with simple harmonic motion is ___ at the
mean position.
Answer: *maximum*
FBQ29: Instantaneous velocity is the velocity of a particle at some_____of its path.
Answer: *points*

FBQ30: According to principle of moment, if a system of coplanar forces is in equilibrium, then the algebraic ____of their moments about any point in their plane is zero
Answer: * sum *
FBQ31: ___ is that which enables a body to perform work.
Answer: *Energy*
FBQ32: When trying to turn a key into a lock, $\qquad$ of forces are applied. Answer: *couple*

FBQ33: According to the kinetic-molecular theory, particles of matter are in motion in both gas and $\qquad$ .
Answer: *liquid*
FBQ34: The main condition for the rigid body is that the distance between various particles of the body does not Answer: *vary*

FBQ35: A piece of stone has mass 80 kg and density of 0.10 kg per meter cube. What is its volume in meter cube?
Answer: *800*

## zzPreview:

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Multiple Choice Questions (MCQs):
MCQ1: Calculate the pressure due to the water at a depth of 15 m in water. Given that density of water is $1000 \mathrm{~kg} / \mathrm{squared}$ metre and acceleration due to gravity is 9.8 metres per squared second.
Answer: 147000 Newton per square metre
MCQ2: A cubical block of concrete edge 0.30 m , rests on a horizontal surface. If its weight is 240 N , what pressure does it exert on the surface?
Answer: 888.89 N/m2

MCQ3: Kerosene is supplied to a tap from a tank in which the kerosene level is 1.5 m above the tap. If the density of kerosene is $800 \mathrm{~kg} / \mathrm{m} 3$. Calculate pressure of the kerosene at the tap.
Answer: 1200 Pa
MCQ4: The sum of the pressure at any point plus the kinetic energy per unit volume plus the potential energy per unit volume is always a constantâ€ $\square$. This statement is coined from
Answer: Charles' law
MCQ5: A metal rod 80 cm long lengthens by 0.090 cm when its temperature rises by 93 . 60 C . What is the linear expansivity of the metal?
Answer: 0.0012/K
MCQ6: A body moves, from rest with a constant acceleration of 5 m per squared sec.
The distance covered in 5 sec is most nearly
Answer: 100m
MCQ7: The amount of heat energy per mole that must be added or removed when a substance changes from one phase to another is called $\qquad$ .
Answer: Specific heat
MCQ8: A football player could routinely kick a ball at a horizontal speed of $160 \mathrm{~km} / \mathrm{hr}$.
How long did the ball take to reach a point 18.4 m away?
Answer: 32s
MCQ9: The rate of evaporation decreases with increasing $\qquad$
Answer: Pressure
MCQ 10: The__ pendulum is any real pendulum in which all the mass is taken to be concentrated at a point.
Answer: physical
MCQ 11: The amplitude of oscillations of a particle in simple harmonic motion is damped by $\qquad$ forces due to the surrounding medium
Answer: Resistive
MCQ 12: A man will exert the greatest pressure on a bench when he $\qquad$
Answer: stands on the toes of one foot
MCQ 13: The gravitational force on a satellite produces the centripetal acceleration that keeps the satellite in
Answer: Orbit
MCQ 14: The $\qquad$ occurs when the driving frequency is the same as the natural frequency of the oscillator.
Answer: Sound
MCQ15: A 2 kg box is at the top of a frictionless ramp at an angle of 60 o. The top of the
ramp is 30 m above the ground. The box is sitting still while at the top of the ramp, and is then released. What is the velocity of the box just before it hits the ground?
Answer: 22.8 m/s
MCQ16: An ungraduated mercury thermometer attached to a millimeter scale reads 22. 8 mm in ice and 242 mm in steam at standard pressure. What will the millimetre read when the temperature is $20 \circ \mathrm{C}$ ?
Answer: 132.4 mm
MCQ17: Convert 45oC to oF
Answer: 100oF
MCQ18: Alcohol boils at
Answer: 1000c
MCQ19: The path followed by the projectile is known as
Answer: Curve
MCQ20: How much heat is required to melt 1.5 kg of ice and then to raise the temperature of the resulting water to $50 \circ \mathrm{C}$ ?
Answer: $3.15 \times 105 \mathrm{~J}$
MCQ21: When matter is heated, it
Answer: Shrinks
MCQ22: If the linear expansivity is of a metal is $2.0 \times 10-5 \mathrm{oC}-1$, calculate its cubical expansivity.
Answer: $2.0 \times 10-50 \mathrm{O}-1$
MCQ23: A fixed mass of gas of volume 546 cm 3 at 0 oC is heated at constant pressure. Calculate the volume of the gas at 20 C .
Answer: 546cm3
MCQ24: When a gas is allowed to expand without heat entering or leaving the gas, the gas is said to undergo an $\qquad$ .
Answer: isothermal expansion
MCQ25: Effect of a force on a body depends upon $\qquad$
Answer: magnitude
MCQ26: The work done by stretching a string is $\qquad$ .
Answer: Zero
MCQ27: The unit of work is the unit of $\qquad$ multiplied by the unit of distance. Answer: Force

MCQ 28: A system that its boundary allows transfer of mass and energy into or out of the system is known as $\qquad$ .
Answer: Close system

MCQ 29: Two bowling balls, each with a mass of 8.52 kg , are traveling toward each other. One bowling ball has a velocity of $2.45 \mathrm{~m} / \mathrm{s}$ to the right while the other bowling ball has a
Answer: 1.20 Ns
MCQ 30: The algebraic sum of the resolved parts of a number of forces in a given direction is equal to the resolved part of their resultant in the same direction. This is as per the principle of $\qquad$ -.
Answer: independence of forces
MCQ 31: A baseball is hit such that it travels straight upward after being struck by the bat. A fan observes that it requires 3.00 s for the ball to reach its maximum height. Find its initial velocity. Ignore the effects of air resistance.
Answer: 2.94 m/s
MCQ 32: A 1500 kg truck traveling at $80 \mathrm{~km} / \mathrm{h}$ collides with another car of mass 1000 kg traveling at $30 \mathrm{~km} / \mathrm{h}$ in the same direction. The two cars stick together after the collision. Their speed immediately after the collision is $\qquad$ .
Answer: 40 km/h
MCQ 33: You throw a ball with a speed of $25.0 \mathrm{~m} / \mathrm{s}$ at an angle of 40.0 ab- above the horizontal directly toward a wall. The wall is 22.0 m from the release point of the ball. How long does the ball take to reach the wall?
Answer: 11.5 s
MCQ34: Which of the following do not have identical dimensions?
Answer: Momentum and impulse
MCQ 35: A rifle is aimed horizontally at a target 30 m away. The bullet hits the target 1 . 9 cm below the aiming point. What is the bulletâ $€^{\top M}$ s time of flight?
Answer: 0.062 s

