

# AFNS ACADEMIC QUESTIONS

## (Past Papers)

### Physics :

Q : The path followed by projectile is known as ;

A: Trajectory

Q : How many sides of prism ?

A: 6

Q : It is not a vector ;

- a) Displacement
- b) Mass**
- c) Force
- d) Acceleration

Q : Unit of Viscosity is ;

- a)  $m^2s^{-1}$**
- b)  $mv$
- c)  $mc^2$
- d)  $ma$

Q : Unit of charge is ;

A: Coulomb

**Q : Ohm is the unit of ;**

**A: Resistance**

**Q : A device that can store charge ;**

**A: Capacitor**

**Q : The unit of surface tension ;**

**A: Newton per meter**

**Q : Electron Volt is the unit of ;**

**A: Energy**

**Q : Thermostat is an instrument which maintain ;**

**A: Temperature**

**Q : The unit of heat is ;**

**A: Joule**

**Q : Tesla is the unit of ;**

**A: Magnetic field**

**Q : The energy which is due to motion is called ;**

**A: Kinetic energy**

**Q : Land revolves around the sun by which law ;**

**A: Law of motion**

**Q : Rate of change of displacement called ;**

**A: velocity**

**Q : Decrease in speed or velocity is called ;**

**A: Deceleration**

**Q : The unit of efficiency is ;**

**A: no unit**

**Q : Distance covered by a body in unit time is called ;**

**A: Speed**

**Q : The unit of Force constant is ;**

**A : N/m**

**Q : Scalar product is also called ;**

**A : Dot product**

**Q : Electron volt is the unit of ;**

**A : Energy**

**Q : One nano second is equal to how many seconds ;**

**A :  $10^{-9}$**

**Q : ERG test is for ;**

**A : Eyes**

**Q : Which force attract each body towards it ?**

**A : Gravitational force**

**Q : Acceleration is ;**

**A : Vector quantity**

**Q : What is the unit of Magnetic Flux ?**

**A : Unit is Tesla**

**SI Unit is density**

**Q : In what condition work is positive ?**

**A : If the direction of Force and Displacement is same then work on object will be positive**

**Q : When the body will move in a circle then what will be the effect on moment or Kinetic energy ?**

**A : Kinetic energy = 0**

**Q : Gravity on center of the Earth is ;**

**A : Zero**

**Q : 1 Horse Power = ?**

**A : 746 watt**

**Q : If the time is doubled then length of pendulum is ;**

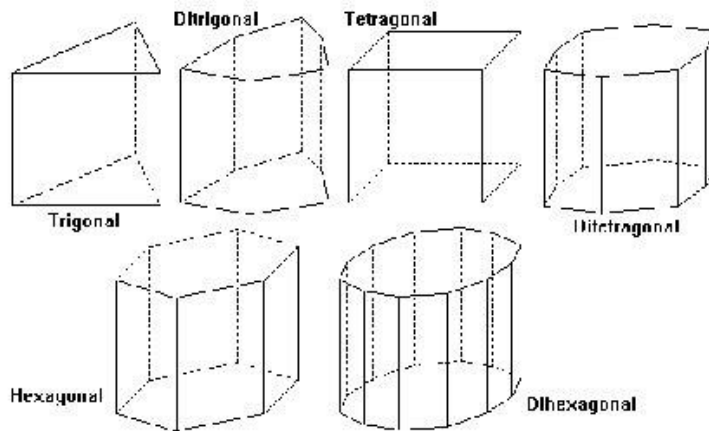
**A : 4 times increases**

**Q : Range of projectile is maximum at the angle of ;**

**A :  $45^{\circ}$**

**Q : How many faces of prism are ?**

**A : Faces depend on prism shape , these faces are possible , so choose that option which is one of them**



## Prisms

- A prism is a set of faces that run parallel to an axes in the crystal
- There can be three, four, six, eight or even twelve faces
- All prismatic forms are open

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**Q : Unit of capacitance is ;**

**A : Farad (name derived from Michael Faraday )**

**Q : Unit of frequency is ;**

**A : Hertz**

**Q : Centripetal object acts on ;**

**A : upon object moving in circle**

**Q : Light year is the unit of ;**

**A : Distance**

**Q : Weight of the body at the center of Earth is ;**

**A : Zero**

**Q : Unit of resistance is ;**

**A : Ohm  $\Omega$**

**Q : The force that can cause an object to rotate about an axis called ;**

**A : Torque**

**Q : Field of physics that studies atoms as an isolated system of an electrons and an atomic nucleus called ;**

**A : Atomic physics**

**Q : The Sun is a ;**

**A : Star**

**Q : Sound wave are -----waves .**

**A : Longitudinal waves**

**Q : Which bulb have high resistance 100 watt or 2 watts ?**     ↓ watts  $\propto$  1 / Resistance ↑

**A : 2 watts**

**Q : ERG (Electro-retino-graphy) test is for ;**

**A : Eyes**

**Q : Study of atoms , neutrons , electrons is in which branch of physics ?**

**A : Atomic Physics**

**Q : Distance covered by the body in unit time is called ;**

**A : Speed**

**Q : Scalar product is also called ;**

**A : Dot product**





**Q : Venturimeter is a device used to measure ?**

**A : The rate of flow of fluid flowing through a pipe**

**Q : Device used to convert DC into AC is ;**

**A : Power Invertor**

**Q : Device used to convert AC into DC is ;**

**A : Rectifier**

**Q : Dimension of Angular Momentum is ;**

**A :  $[M^1] [L^2] [T^{-1}]$**

**Q : The acceleration of freely falling body is ;**

**A :  $9.8 \text{ ms}^{-2}$**

**Q : Dimension of Impulse is similar to ;**

**A : Momentum Formula ; Ns**

**Q : When a ray of light enters a glass slab from air then ;**

**A : It's wavelength decreases**

**Q : SI unit of Frequency is ;**

**A : hertz ( Hz )**

**Q : Dimension of mass is ;**

**A : [M]**

**Q : What is the weight of the body placed at the centre of the Earth ?**

**A : Zero**

**Q : The SI unit of viscosity is ;**

**A : Pascal.second /  $\text{kgm}^{-1}.\text{s}^{-1}$**

**Q : Hook's Law applicable within ?**

**A : Elastic Limit**

**Q : SI unit of self-inductance is ;**

**A : Henry ( H )**

**Q : The SI unit of capacitance is ;**

**A : Farad ( F )**

**Q : Number of SI basic unit is ;**

**A : Seven**

**Q : Unit of stress is ;**

**A :  $\text{Nm}^{-2}$**

**Q : The period of simple pendulum will be doubled if ;**

**A : By increasing the length four times**

**Q : In the case of concave mirror centre of curvature lies in ;**

**A : Front of mirror**

**Q : Frequency of Second Pendulum is ;**

**A : 0.5 Hz**

**Q : The unit of heat is ;**

**A : Joule**

**Q : Tesla is the unit of ;**

**A : Magnetic field**

**Q : The unit of force constant is ;**

**A : N/m**

**Q : The energy that it possesses due to it's motion is called ;**

**A : Kinetic Energy**

**Q : Rate of change of displacement is called ;**

**A : velocity**

**Q : The unit of Efficiency is ;**

**A : No unit**

**Q : One nano second equal to how many seconds ?**

**A :  $10^{-9}$**

**Q : Acceleration is a ;**

**A : Vector quantity**

**Q : Gravity at center of the Earth is ;**

**A : Zero**

**Q : Device that converts electrical power into coherent light ?**

**A : Laser Diodes**

**Q : Each orbital can hold a maximum of ----- electrons.**

**A : Two**

**Q : The maximum range for projectile motion is ;**

**A :  $45^\circ$**

**Q : How many joules are in 1 calorie ;**

**A : 4.18 Joules**

**Q : A Photon loses it's entire energy during ;**

**A : Photoelectric effect**

**Q : In case of positive work ; the angle between force and displacement is ?**

**A :  $0^\circ$  (zero degree)**

**Q : In case of negative work ; the angle between force and displacement is ?**

**A :  $180^\circ$**

Q : Unit of Magnetic Flux is ;

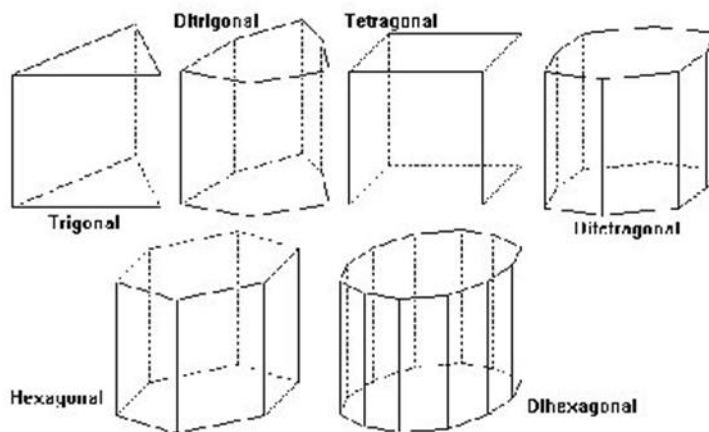
A : Weber ( Wb )

Q : The SI unit of Magnetic Flux density is ;

A : Tesla

Q : How many faces of prism ?

A : Faces depend on prism shape , these faces are possible , so choose that option which is one of them



## Prisms

- A prism is a set of faces that run parallel to an axes in the crystal
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**Q : The SI unit of capacitance is ;**

**A : Farad ( F )**

**Q : One horse power is equal to ;**

**A : 746 watts**

**Q : Which force attracts each body toward itself?**

**A : Gravitational Force**

**Q : Which force attracts each body toward itself?**

**A : Gravitational Force**

**Q : A body is traveled at a uniform speed of 20m/s. Find the distance covered in 10 sec.**

**A : 200meter**

**Q : Electron volt is the unit of?**

**A : Energy**



**Q : If two forces of 3N and 4N are acting on a body making an angle of 90 with each other. The magnitude of the resultant force will be?**

**A : 5N**

**Q : Scalar product is also called?**

**A : Dot Product**

**Q : Which Bulb Gives More Brightness 60Watt or 100Watt?**

**A : 100watt**

**Q : Distance covered by a body in unit time is called?**

**A : Speed**

**Q : One nano second is equal to?**

**A : 10 power -9**

**Q : The unit Of efficiency is?**

**A : No Unit**

**Q : Study of neutrons, atoms, electrons is in which branch of physics?**

**A : Atomic Physics**

**Q : Rate of change of displacement is?**

**A : Velocity**

**Q : In order to do work Energy?**

**A : Transferred/Convert**

**Q : The SI unit of electric current is?**

**A : Ampere**

**Q : ERG (electroretinography) test is for?**

**A : Eyes**

**Q : Which bulb have high resistance 100Watt or 2Watt**

**A : 2 Watt**

**Q : Long sightedness is corrected by using?**

**A : Convex lens**

**Q : The SI unit of Electric dipole moment is?**

**A : Ampere Second Meter**

**Q : Which bulb have low resistance 100Watt or 60Watt?**

**A : 100 Watt**

**Q : The unit of heat is?**

**A : Joule**

**Q : Tesla is the unit of?**

**A : Magnetic Field/ Magnetic Induction**

**Q : The Energy Which is due to motion?**

**A : Kinetic Energy**

**Q : Potential energy and kinetic energy are examples of?**

**A : Mechanical Energy**

**Q : A 250V bulb passes a current of 0.3A. Calculate the power in the lamp.**

**A : 75watt**

**Q : Total photosynthesis is carried out by terrestrial Plants is?**

**A : 20%**

**Q : The unit of force constant is?**

**A : Newton/meter**

**Q : The work is equal to the product of?**

**A : Force And Displacement**

**Q : Is pen write on paper Due To Force?**

**A : Yes (Force of Friction)**

**Q : In Physics we study the relation between?**

**A : Matter and Energy**

**Q : Unit of Force Constant is?**

**A : N/m**

**Q : Unit of dipole moment?**

**A : Ampere Second Meter**

**Q : Unit of viscosity is?**

**A : Ns/m<sup>2</sup>**

**Q : Body Rotating with constant angular acceleration its centripetal force will be?**

**A : Constant**

**Q : Solid NaCl is?**

**A : Insulator**

**Q : Electric Motor Convert-----energy into mechanical ?**

**A : Electrical**

**Q : When a craft move in a space its law of motion?**

**A : 3rd Law of Motion**

**Q : Who proposed pressure flow Theory?**

**A : Ernst Munch**

**Q : Beats are produced due to?**

**A : Interference**

**Q : Viscosity in solids is?**

**A : No Concept**

**Q : Unit of charge is?**

**A : Coulomb**

**Q : Electron volt is a unit of?**

**A : Energy**

**Q : Torque is the product of?**

**A : Force and radius vector**

**Q : Unit of dipole moment?**

**A : Ampere Second Meter**

**Q : A train of mass 8000Kg is moving with constant speed then the net force acting on it is?**

**A : Zero**

**Q : Acceleration is ?**

**A : Vector Quantity**

**Q : A device that can store charges?**

**A : Capacitor**

**Q : First law of motion of Newton is also called?**

**A : Law of Inertia**

**Q : The rate of doing work is called**

**A : Power**

**Q : Unit of energy is?**

**A : Joule**



**Q : Earth moves around the sun according to which law?**

**A : Kelper's 2nd Law**

**Q : Unit of charge is?**

**A : Coulomb**

**Q : In which law pressure is kept constant?**

**A : Charles law**

**Q : Ohm is the unit of?**

**A : Resistance**

**Q : The path followed by a projectile is?**

**A : Trajectory**

**Q : Electron volt is the unit of?**

**A : Energy**

**Q : Magnetic induction is also called?**

**A : Magnetic Flux density**

**Q : Unit of viscosity is?**

**A : Meter<sup>2</sup>/sec**

**Q : The unit of surface tension is?**

**A : Newton/meter**

**Q : Which is not a vector quantity?**

**A : Mass**

**Q : The direction of the induced current always so opposed to the change which causes current?**

**A : Lenz law**

**Q : Which shows the energy of orbits?**

**A : Bohr atomic model**

**Q : Earth revolves around the sun according to which law?**

**A : Law Of Motion**

**Q : When a body is in a circular path with constant speed then force acting on it?**

**A : Zero/No Force**

**Q : Atom bomb is based on the principle of?**

**A : Nuclear Fission Reaction**

***THE END***