GSC101 MID Term

The anomalous behavior of water can be seen at temperature…….

0 K

4 C

32 F

100 C

Equation of motion can only use to find the solution of problems for……

Motion along the circular

pathMotion in straight line

Motion along curved path

All of above

For the sequence of natural if n natural numbers =summation (n)=21 then value of n is …….

-7

-6

6

7

If the sum of first n natural is n(n+1)/2, then their average will be…….

n/2

(n-1)/2

(n+1)/

2

N(n+1)/2

If an incident ray passes through the center of curvature of a spherical mirror ,the reflected ray will:Pass through the focus

Pass-through the center of curvatureThrough pass the pole

A car travelling at 90KM/hr on highway overtaking a bus with 120Km/hr speed. What is relative velocityof car with respect to passenger sitting in bus ?

30km/hr

210 meters

90km/hr

120km/hr

Between the melting point of ice and the boiling point of water there are273 Kelvin

110 degrees Fahrenheit

373 degrees centigrade

180 degrees Fahrenheit

The change in length of an object when it undergoes a temperature change is related toIts original length

Its mass

The magnitude of the temperature change(i)only

(ii)&(iii)0nly

(i)&(iii)only

(i),(ii)&(iii

)

The objective emits the light and become source of light are

called……objectiveTransparent

Opaque

Luminous

Translucen

t

If we apply the force on an object but the object does not move ,we can say

that …..Applied force is equal to force of friction

Applied force is less than force of

friction Applied force is greater than

force of frictionApplied force is equal to

force of gravity

Which of the fllowing process does not involve any chemical

reaction?Burning of paper when heated

Melting of candle wax when

heatedRiprning of banana

Digestion of food in our stomach

A ston of mass 2 kg dropped from a tower fall to the ground in 3 second .A second mass

of 3 kgDropped from the same height reaches the ground in:

2 seconds

3 seconds

4.5

seconds6

seconds

Liquids and gases expand on heating ,produce :

Convection currents in fluids due to changing

masses Convection currents in fluid due to

changing densitiesHeat transfer by conduction

Convection currents in fluid due to constant temperatures

The amount of heat required to raise the temperature of 1kg mass of that substance through1k is called its…….

Specific heat

Specific energyLatent heat Latent energy

Slowing down in opposite direction to the direction of the velocity is known as …..Uniform acceleration

Non-uniform accelerationPositive acceleration Negative acceleration

Same force F is applied on two objects Xand Y but the acceleration caused by this applied FAre not same. The object X has acceleration three times that of object Y because ---------

X is times more massive than YXhas one-third the massof Y

X has different shape so easily movedY has more value of friction

If the object is placed --------,then the image formed by a concave mirror is virtual,erect and Magnified;

Between the pole of the mirror and the focusBeyond the center of curvature

At the centre of

curvatureAt the focus

For a force F acting at an angle? Above the horizontal the component along the X And the Y axis are equal . The angle?in degrees between the force and the horizontal is ;0

30

45

60

if we push the ground in the backwards direction and the ground exerts a force in the forwardforward direction enabling us to walk .This process is described by which law

law of lnertia

law of action and reaction

law of conservation of momentumthe force and acceleration law

when mercury level rises in the clinical thermometer, the mercury in capillary tube doesnot contract

mercury takes a long time to contract

the amount of mercury use is very small

the capillary tube has a small constriction near the bulbthe capillary tube is very narrow

A motion where a body has the exact same motion around a fixed point is an example of

Random motion

Translator

motionVibratory

motion Circular

motion

Which of the following quantum number gives the shell number where electron

occupy?L

M

S

N

Which of following has positive

charge?Atom

Electro

n

Proton

Neutro

n

Lsotopes are sister atoms of same elements with similar chemical

propertiesBut different ----------

Atomic

structure

Atomic volum

Atomic

numbers

Atomic weights

A person suffering from long –sighted cannot see objects nearer to his eye than 50 Cm.

He wants to read a book 25cm away;he should use spectacle lenses whose power in diopters is

.....

-6

-4

-2

+4

In cold areas during winters pipes which are not properly insulated may burst due

to:Real expansion of water

Apparent expansion of

waterExpansion of pipes

Anomalous expension of water

According to the sign convention ,the distance of object ……from mirror/lens:Is always positive

Is always negative

May be positive or negativeIs equal to object height

----------is combined with iron to make steelSulphur

Carbon

Lodine

Magnesium

Force is defined as the rate of change of :Velocity

Acceleration

Momentum

Mass

Amino acids are organic compounds which contain--.

Oxygen

Sulphur

Nitrogen

Calcium

If the velocity of an object is decreasing ,acceleration has to be

Positive

Negativ

e

Unifor

m

Variable

The energy stored in compressed spring is know as ------

Kinetic energy

Chemical

energySound

energy

Elastic potential energy

The SI unit of energy is :

Newto

nWatt

Pascal

Joule

For a force F acting along the horizontal axis, its horizontal component

equals:0

½

FF

2F

The most abundant metal in earth crust is ------

Calcium

Sodium

Iron

Aluminu

m

Which of the following metals are

corroded ?Cu

Fe

A

g

Ni

Which of the following is the fastest

speed30,000 km per day

300 km per day

300 meter per second

300 millimeters pr microsecond

The first step in the scientific method or

process is :Predication

Observation

Hypothesis

Experimentatio

n

A person sitting inside a moving train is in a state of …….with respect to

the otherPassengers

Uniform speed

Variable speed

Uniform

accelerationRest

A motin of a turbine is an example of :

Random motion

Translatory motion

Vibratory motion

Circular motion

A ------- mirror is used by dentists to focus light on the tooth of a patient

Cylindric

alPlane

Convex

Concave

Valencies of nobel gasses in general are -------

Thre

eOne

Two

Zero

If focal length of a lens is -50cm, the power of lens wills be ---------

+50 D

-2D

-50 D

+2 D

Optical fiber works on :

Principle of total internal

reflectionReflection

Refraction

Polarizatio

n

Efficiency is defined as:

Useful output energy input energy

Input energy total out pit energy

Total output energy input energy

Input energy useful output

energy

The rate of change of velocity is

know asUniform velocity

Variable

velocity

Average

velocity

Acceleration

A motion of a child on a swing is an example of :

Random moton

Translator

motionVibratory

motion Circule

motion

What three things can light rays travel

through?Solids,liquids,gases

Air,water ,outer ,space

Humans ,plants

,animals ,Liquid ,air

,plants

When two bodies are moving relative to one another the motion between them is

Translato

rCircular

Rotationa

lRelative

The short distance between two point is also known as

the :Distance

Speed

Acceleration

Displaceme

nt

Which of the following contain –CHO functional group ?Alcohols

Aldehyde

sKetones

Esters

Greater the value of refractive index of a medium ,the blending of light will be ------

Greater

Smaller

Zero

Negativ e

The branch of physics which deals with the study of motion of bodies without the influenceOf force is known as -----

Mechanics

Kinemstics

Dynamics

Modern physics

Due to which property metals are used in making of musical instrument like sitarAnd violin ?

Conductivity

Malleability

Ductility

Sonorousnes s

The objects emits the light and become source of light are called objects .

Transparent

Opaque

Luminous

Translucen

t

Solar cell technology is an example of --.

Thermal energy

Nuclear energy

Renewable energy

Non-renewable

energy

The energy of an stom in a compound --.

Remains same

Higher than

individual Lesser

than individual Can

not find out

The most abundant metal in earth crust is ---.

Calcium

Sodium

Iron

Aluminu

m

Between the melting point of ice and the boiling point of water

there are273 kelvin

110 degrees Celsius

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373 degrees centigrade

Due to which property metals are used in making of musical instruments like sitar and violin ?

Conductivity

Malleability

Ductility

Sonorousnes

s

Which line represents the SI unit of force and its

unit :Kilogram meterkg m

Gram g

Kilogram

kg Newton

N

Acceleration of a car moving steadily from 2m/s to 10 m/s in 50 s is --.

0.24m/s2

0,4m/s2

0.61m/s2

1.6m/s2

Which of the followimg halogens element has highest electron

affinity ?Fluorine

Chlorin

e

Bromin

e

Lodine

Till now ,how many element are

known ?92

118

112

124

The SI unit of heat

is :Kelvin

Joule

Thermomete

rWatt

Which of the following is a derived unit:

Kilogra

m

Kelvin

Ampere

Newton

A kilowatt hour is a unit

ofPower

Force

Energ

y

Time

Sum of first 2000 term of the sequence :{-1,1,-1,1,…..}is -------

-1

1

0

Undefined

A person sitting inside a moving train is in a state of …..with respect to other

passengersUniform speed

Variable speed

Uniform

acceletationRest

Solar cell technology is an example of --.

Thermal energy

Nuclear energy

Renewable energy

Non-renewable

energy

The branch of physics which deals with the study of motion of bodies without the influence ofForce is known as --.

Mechanic

s

Kinemati

cs

Dynamics

Morden physics

There is no deviation in the path of ray of light when it passes through of a lens

Optical

centerFocus

Center of

curvaturePole

Work done depends upon (i) force (ii)distance moved in direction of force applied and (iii)angle between direction of force and displacement .which line is always correct if workDone is not zero :

(i)is nit zero

(i) and (ii)are not

zero (i)and (iii)are

not zero

(ii) and (iii)are not zero

For diverging lens,which of the following is true ? The lens is thinner in the center than on the edges.

The lens is thicker in the center than on the

edges.Light must enter it parallel to the

principle axis .

The lens must be flat on one side ,

Which of the following statement /s is /are correct :

Optical fibers can bend light using the principle of laws

Optical fibers bend the light beam using the principle of tatal internal

reflectionOptical fibers cannot bend the light

Optical fibers can bend light using the principle of laws of reflection

Sum of the geometric series :1+(1/2)+(1/4)+(1/8)+ is

2

3/2

1

5/2

When a horse pulls a wagon the horse moves forward due to the

force :Of the horse on the wagon

Of the wagon on the

horse Of the horse on the

ground

Of the ground on the horse

In Prokaryotic cells the outer most layer is known as____.

Cytoplasm

Cell wall

Cytoskeleton

Cell

membrane

What important activity takes place in the lungs

Oxygen is exchanged for carbon dioxide The trachea is exchanged for the larynx Food is digested

Liquid waste is filtered from the blood

The mean function of cell membrane is_____.

Helping in movement of organelles

Providing space for metabolic reaction

Transporting of materials in and out from cell Giving protection strength and support

What is the main job of the red corpuscles in the blood?

To transport oxygen to the body's cells and carry away carbon dioxide from the cells To clot blood

To fight disease

To transport carbon dioxide to the body's cells and carry away oxygen from the cells

In anaphases I the chromosomes contains one pair of_____.

Daughter chromatids

Sister nucleosomes

Sister chromatids

Daughter nucleosomes

Mitochondria are called powerhouse of a cell because_____.

They make ATP (Adenosine Tri Phosphate) for cell They have a double membrane

They present in cytoplasm in large number They are self replicating organelle

During Anaphase of mitosis the chromosomes are_____.

Moving towards the poles

Reached at the poles

Arranging themselves at the

equatorReplicating themselves

Each distinct form of life or type of organism is called _____

Specie

sCell

System

Domai

n

What is the respiratory

system?The body's system of

nerves The body's breathing

system

The body's blood-transporting

systemThe body's food-processing

system

Products excreted by the skin are excess water, urea, uric acid

andsalt

hairs

carbon

dioxideoil

Another bladder in the body a prat from the urinary bladder is

the:Bile duct

Prostate bladder

Gal bladder

Kidney

artery

What is the respiratory system?

The body’s food-processing

system

The body’s system of nerves

The body blood-transporting system

The body’s breathing system

Animals such as bears that consume both plants and other animalsProducers

Herbivores

Omnivores

Carnivores

Flowers have male and female parts called ……..and…..Pollination carpel

Stamen

pollinationCarpel

stamen

Stamen carpel

How many chromosomes does a normal, mature, human Sperm cal contain ?21

22

23

46

The smallest blood vessels are___.

Arteries

Veins

Capillaries

Arteriole

s

What important activity takes place in the lungs?

Oxygen is exchanged for carbon dioxide

Liquid west is filtered from the blood

The trachea is exchanged for the larynx

Food is digested

The entire planet and all of its living and nonliving parts

Biosphere

Communit y

Ecosystem

Population

The remove of the metabolic wastes of an organism is:

Respiration

Excretion

Defecation

Renal artery

A group of organisms of the same species that interbreed and live in the same place

Population

Communit y

Organism

Species

Organisms that use energy from The sun to make their own food are

Carnivores

Consumers

Producers

Omnivore

s

Air can enter the body and travel to the

lungsThrough the esophagus and gullet

Though the windpipe and the pores

Through the mouth and the nose

Through the nose and the nervous system

What is the purpose of the little hairs inside the

nose ?To tickle the nose and cause sneezes

To keep dust out of the

lungThey serve no

purpose

To fight disease

Animals such as foxes that consume other animals for their food and energy

Carnivore

s

Producers

Herbivore

s

Omnivore

s

Which one in blood help in exchange of oxygen against

Contraction?White blood cells

Plasm

aSalts

Hemoglobin

What is the organ that pumps blood all throughout the human

body?The blood vessels and capillaries

The

kidneys

The lungs

The heart

The removal of the metabolic wastes of an

organism is:Respiration

Excretion

Defecation

Renal

artery

Products excreted by the skin are excess water, urea,

uricacid and

salt

carbon

dioxideoil

Hair

Seed is formed form the……..

Carpel

Pollinatio

n

Zygote

Stame

n

Why is blood that flows from the lungs to the heart bright red rather than dark

red ?The lungs add a pigment (dye) to blood as it flows through them

Gastric juices produce the red color of the

bloodCarbon dioxide makes it red

Oxygen makes it red

Left ventricle pushes blood towards

……Hearth

Tricuspid vale

Aort

a

Lung

s

Right ventricle pushes blood in the pulmonary artery

Towards….Bicuspid valve

Tricuspid

valveHearts

Lungs

The tiny air sacs in lungs are called ___

Bronchiole

sRavioli

Alveo

li

Bronx

A collection of interacting

populationsSpecies

Population

Communit

y

Organism

Another bladder in the body apart from the urinary bladder Is

the:Bile duct

Prostate

bladderGall

bladder

Kidney artery

What is the main job of the red corpuscles in the blood?To clot blood

To fight disease

To transport carbon dioxide to the body's cells and carry Away oxygen from the cells

To transport oxygen to the body's cells and carry away Carbon dioxide from the cells

The organ that produces urea and acid as a by-product of the breakdown of proteins is

the :Stomach

Liver

Small

intestine

Kidney

The highest blood pressure is found in the _____

Venue

sAorta

Arterie

sVeins

One degree of Celsius is equal to?
One degree of Fahrenheit scale
1.8 degree of Fahrenheit scale
3.2 degree of Fahrenheit scale
2.12 degree of Fahrenheit scale

The aluminum metal is used for making cooking utensils because metals are _____.
Good conductors
Malleable
Ductile
Solid at room temperature

A hydroelectric power plant converts the gravitational potential energy of water to electric energy .if 150,000kg of water flowing down a height of 35 MW. The efficiency of the system is
50 to55%
56 to 62%
75 to 85%
93 to 97%

A mass is projected vertically downwards. Just at the point of release with the ground its total energy is :
0% gravitational potential and 100% kinetic energy
25% gravitational potential and 75% kinetic energy
50% gravitational potential and 50% kinetic energy
100% gravitational potential and 0% kinetic energy

Mercury is chosen as a thermometric substance because: i. over a wide range of temperature its expansion is uniform ii.it does not stick to thermometer glass iii. It opaque to light
(i) Only
(ii)& (iii) only
(i)& (iii) only
(i),(i)&(iii)

The gas law giving the relationship between ‘’V’’ and ‘’P’’ of a gas is
Dalton’s law
Charles’s law
Graham’s law
Bayle’s law

The graph between V and 1/p at constant temperature is:
A straight line
Parabola
A curve of any shape
Hyperbola

Which of the following halogens element has highest electron affinity?
Fluorine
Chlorine
Bromine
Iodine

Metals are usually_____
Hard
Hard and ductile
Ductile and malleable
Hard, ductile and malleable

Force is defined as the rate of change of:
Velocity
Acceleration
Momentum
Mass

---------- is used as a tonic medicine and in the manufacturing of ink and pigments
Ferrous sulphate
Ferrous fluoride
Ferric oxide
Ferrosoferric oxide

A motor pumps 4,000kg of water from aground tank to an overhead tank 50 m up in one hour.

The power of the motor is:
55.5W
250 W
555W
33,333W

Two rectangular strips of copper and steel are wrapped up to from a bi-metal strip. On heating the bi-metal strip will:
Contract
Remain straight
Bend with steel on the convex side
Bend with steel on the concave side

When two equal and opposite vectors are subtracted from one another the resultant is
Zero
Half of the original vector
The original vector
Twice the original vector

Isotopes are sister atoms of same elements with similar chemical properties but different _____.
Atomic structure
Atomic volume
Atomic numbers
Atomic weights

Another statement of newton second law of motion is ‘’rate of change of momentum is equal to ____’’
Acceleration
Mass
Force
Velocity

Energy possessed by an object due to its motion is termed as
Potential energy
Motion energy
Thermal energy
Kinetic energy

The temperature of sand raised more quickly as compared to water as specific heat of sand is ____.
Equal to water
Greater than water
Less than water
Neutral

According to the sign convention, the distance of object…….from mirror/lens:
Is always positive
Is always negative
May be positive or negative
Is equal to object height

A car travels at 10km/hr for 2 hours and then at 13km/hr for 1 hour. What is the value of average speed in km/hr
8km/hr
11km/hr
15km/hr
17km/hr

For a force F acting along the horizontal axis, its vertical component equals
0
1/2F
F
2 F

A battery of car has stored …….. Energy, which it converts to electric energy when required.
Chemical energy
Potential energy
Thermal energy
Kinetic energy

Matter can exist in four states (i) gas, (ii) plasma (iii) solid and (iv) liquid. For a particular element normally the states arranged in order of rising temperature (lowest to highest) are:
(i),(ii),(iii) and (iv)
(iv),(iii),(ii) and (i)
(ii),(i),(iv) and (iii)
(iii),(iv),(i) and (ii)

The reading on the Fahrenheit scale will be double the reading on the centigrade scale when the temperature on the centigrade scale is?
160
280
460
360
What is the name of chemical bond between two atoms where both bonding electrons donated by a single atom?
Ionic bond
Covalent bond
Coordinate covalent bond
Hydrogen bond

The value of the coefficient of thermal expansion of a solid depends on the voice of:
The unit of length as well as of temperature
The unit to length and not of temperature
The unit of temperature and not of length
Neither the unit of length nor of temperature

An image formed by a convex mirror is always:
Virtual, erect and diminished
Virtual, real and magnified
Real, erect and magnified

Another statement of newton second law of motion is ‘’rate of change of momentum is equal to _____’’
Acceleration
Mass
Force
Velocity

Which of the following is a true statement?
The power of a lens is always positive.
The power of lens is always negative.
The power of a convex lens is positive.
The power of a concave lens is positive.

The composition (by mass) of Fe in stainless steel is _____percent
80.6%
76%
96%
98%

Which of the following is not an electromagnetic wave?
X-rays
Ultraviolet
Sound
Visible light
Which of the following group contain alkaline earth metals
Group 1
Group 2
Group 3
Group 7

Work done depends upon (i) force (ii) distance moved (iii) angle between direction of force and displacement. Which line is correct if work done is not zero: force angle displacement?
Zero zero degree zero
Zero 90 degrees zero
Greater than zero degrees greater than
Greater than 90 degrees greater than zero

In using the equations of motion all quantities having direction same as the initial velocity are taken as
Positive
Negative
Zero
Uniform

Sum of all type of energy that an object can possess is called_____.
Temperature
Power
Heat
Density

If the thickness of human eye lens increases, the image will formed_____.

Behind the retina
In front of retina
On retina
In between lens and retina

Due to anomalous expansion liquid-water has a volume increase as it cools below:
10
4
-4
-10

Which line correctly represents mass and weight
Mass wright
Is a victory quantity unit is kilogram
Is a scalar quantity unit is newton
Unit is newton is a vector quantity
Unit is kilogram is scalar quantity

A motorcycle was moving with uniform acceleration of 6m/s. in 10 s is it will cover_____.
60 meters
100 meters
300 meters
450 meters

When ray of light enter from dancer medium to rare medium it bends_____.
Away from normal
Towards normal
Perpendicular to normal
Parallel to normal

Inverse of focal length is known as the _____ of a lens:
Focus
Power
Power of accommodation
Far point

Distance covered in unit time is:
Displacement
Speed
Velocity
Acceleration

Science does not deal with:
Observation
Experimental
Hypothetical assumptions
Subjective evidence

The M.P caustic is _____degree centigrade
100
801

95
318

A car with uniform speed can have the acceleration only when the motion of car is in_____.
Straight line
Circular path
Irregular path
Parabolic path

The rate of change displacement is known as:
Speed
Velocity
Acceleration
Retardation

If the body covers equal distances in equal intervals of time, irrespective of the interval, that body is said to be:
Accelerating
Moving with uniform velocity
Moving with uniform speed
Decelerating

The amount of work done by a Force of 5 N pilling a mass of 5 kg, 5m along a rough floor in the direction of the applied force is
5 J
25 J
50 J
125 J

When water is heated from 0 to 20 C its volume
First decreases and then increase
Goes on decreasing
Remains constant up to 4 C and then increase

A battery of car has stored ……..energy, which it converts to electric energy when required.
Chemical energy
Potential energy
Thermal energy
Kinetic energy

White light separates into different colors after passing through a ----------:
Mirror
Camera
Prism
Hammer

The atom, which provides the electron pair, is called_____
Gainer
Accepter
Donor

Receiver

The refractive index of a denser medium with respect to a rare medium is-------:
1
Greater than 1
Smaller than 1
Negative

Which of the metal exists in liquid state at room temperature?
Fe (Iron)
Cu (cupper)
Hg (mercury)
Al (aluminum)

The shielding effect in Na is
Greater than that of Li
Greater than that of k
Equal of that k
Equal of that Li

The metal reacting readily with co0ld water is.
Au
Ag
Na
Mg

Find the power of a convex lens, if it's focal length of is 25cm:
2.5 D
4 D
0.4 D
0.25 D

White light separates into different colors after passing through a ----------:
Mirror
Camera
Prism
Hammer

If a bus is moving with uniform velocity on highway, it can be concluded that_____.
It is moving with uniform acceleration
There are no forces acting on it
There are no unbalanced (net) forces acting on it
It has large value of inertia

The example of giant molecule is_____
Sic
Diamond
AIN
AgCI
The rate of reaction of organic compounds is very slow due to _____.
Ionic bonding

Covalent bonding
Coordinate covalent bonding
Metallic bonding

Water has an expansion which is considered as an anomalous behavior at which temperature rang:
0 k to 10 k
273 k to 283
373 k to 383 k
-10 k to 0 k

One degree of Celsius is equal to?
One degree of Fahrenheit scale
1.8 degrees of Fahrenheit scale
3.2 degrees of Fahrenheit scale
2.12 degree of Fahrenheit scale

If two quantities are directly proportional to each other than the graph between them is a:
Circle
Arc
Straight line
None of the above

The refractive index of a denser medium with respect to a rarer medium is-------:
1
Greater than 1
Smaller than 1
Negative

Image that can be obtained on a screen:
Virtual
Real
Diverging
Converging

The purest form of iron produced when impurities are removed is known
Pig Iron
Cast Iron
Wrought Iron
Steel

Working principle of geyser bases on which of the following?
Conduction
Convection
Radiation
Charles law

The temperature of sand raised more quickly as compared to water as specific heat of sand is_____.
Equal to water
Greater than water
Less than water

Neutral

If a body does not change its position with respect to the observer than it is said to be in a state of:
Rest
Motion
Acceleration
Retardation

Two rectangular strips of copper and steel are wrapped up to form a bi-metal strip. On heating the bi-metal strip will:
Contract
Remain straight
Bend with steel on the convex side
Bend with steel on the concave

Matter can exit in four states (i) gas (ii) plasma, (iii) solid and (iv) liquid. For a particular element normally the states arranged in order of falling temperature (highest to lowest) are:
(i),(ii),(iii)and (iv)
(iv),(iii),(ii)and (i)
(ii),(i), (iv) and (iii)
(iii),(iv),(i) and (ii)

An image formed by a convex mirror is always:
Virtual, erect and diminished
Virtual, real and magnified
Real, inverted and diminished
Real, erect and magnified

The power of a machines do a work of 100 J in 10 seconds is _____.
10 watt
100 watt
500 watt
1000 watt

A person walks 3 km north, then moves 4 km east. His displacement is
3 km East of North
4 km East of North
5 km East of North
7 km East of North

If the temperature of a gas increased by keeping the volume constant, then:
Its pressure rises
Its pressure is constant

Its pressure falls
Suddenly increases and then decreases

The cell in which electrical energy is converted into chemical energy is called
Electrolytic cell
Galvanic cell
Daniel
Fuel cell

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0 K to 10 k
273 k to283 k
373 k to 383 k
-10 k to 0 k

The composition (by mass) of Fe in stainless steel is _____ percent
80.6%
67%
96%
98%

The force produced due to gravity is known as _____.
Mass
Tension
Weight
Friction

The SI unit of temperature is:
Kelvin
Celsius
Fahrenheit
Centigrade

If two quantities are inversely proportional to each other than on the graph when one quantity increases the other
Increases
Decreases
Remains constant
Increases and then decreases

In the optical fiber the refractive index of core in comparison to that of cladding is:
Smaller
Greater
Equal
Minor

When a person uses a convex lens a simple magnifying glass, the object must be placed at a distance:
Less than one focal length
More than one focal length
Less than twice the focal length

More than twice the focal length

Distance covered in unite time is:
Displacement
Speed
Velocity
Acceleration

Molecule has a polar covalent bond?
NaCI
HCI
H2
None of these

Total internal reflection occurs when:
Light passes from air into water
Light refracts as it exit glass into air
Light passing through glass is reflected inside the glass
The angle of incidence is less than critical angle

Simple thermostat works on:
Condensation
Specific heat
The second law of thermodynamics
Thermal expansion

Example of derived unit is _____.
Current
Speed
Temperature
Quantity of a substance

The rate of change of velocity is known as
Uniform velocity
Variable velocity
Average velocity
Acceleration

A_____ mirror is used by dentists to focus light on the tooth of a patient
Cylindrical
Plane
Convex
Concave

When light travels from glass to air, the speed of light will _____'
Decreases
Increases
Not change
Depend on angle of incidence

Inverse of focal length is known as the _____of a lens:

Focus
Power
Power of accommodation
Far point

Two rectangular strips of copper and steel are wrapped up to from a bi-metal strip .on heating, the –metal strip will:
Contract
Remain straight
Bend with steel on the convex side
Bend with steel on the concave

A straight line graph proportional between displacement and time indicates
Average speed
Uniform speed
Average velocity
Uniform velocity

Which of the metal exists in liquid state at room temperature?
Fe (Iron)
Cu (cupper)
Hg (mercury)
AI (aluminum)

Temperature is a property which determines:
How much heat a body contains
Whether a body will feel hot or cold to touch
In which direction heat will flow between two systems
How much total absolute energy a body has

A man started his walk from main gate of park and after completing two rounds of track of 100 meters in 10 minutes he came back to the main gate .what is value of his total displacement?
Zero
10 meters
100 meters
200 meters

Working principle of geyser bases on which of the following?
Conduction
Convection
Radiation
Charles law

Optical instrument like telescope, microscopes and optical filers are bases on which light phenomena?
Absorption of light
Different of light
Total internal reflection of light
Scattered of light

Which of the following statements/s is/are correct:

Optical fibers can bend light using the principle of laws of refraction
Optical fibers bend the light beam using the principle of total internal reflection
Optical fibers cannot bend the light
Optical fibers can bend light using the principle of laws of reflection

When two equal and opposite vectors are subtracted from one another the resultant is
Zero
Half of the original vector
The original vector
Twice the original vector

Two balls of different masses, and hence of different sizes, but of the same material, are thrown upwards at the same speed. They reach the maximum height and fall back to the ground ignoring air resistance the balls will fall to the ground
Simultaneously
Heavy ball first
Lighter ball fast
Larger ball fast

A vector is multiplied by four .the resultant will be …..Time the original vector
2
3
4
5

To get a real and inverted image of the same size using a convex lens where should an object be placed?
Between 0 and F
At F
At 2F
At infinity

The atom, which provides the electron pair, is called _____
Gainer
Accepter
Donor
Receiver

If two quantities are inversely proportional to each other than on the graph when one quantity increases the other
Increases
Decreases constant
Increases and then decreases
A person sitting in his office reading a lengthy report comprising 800 pages is according to physics definition of work is:
Doing work
Not doing work
Gaining energy
Losing energy

The gas law giving the relationship between V and P of gas is

Dalton’s law
Charles‘s law
Graham’s law
Boyle’s law

Which line correctly identifies the steam point on the scales of temperature: kelvin/K Celsius/ Fahrenheit/
273 0 32
273 100 212
373 0 32
373 100 212

Which line correctly identifies average speed?
Distance covered in unit time
Displacement in unit time
Distance covered in constant time intervals
Total distance covered divided by time taken

Sum of all types of energy that an object can possess is called _____.
Temperature
Power
Heat
Density

If the pressure of a given is held constant its density is inversely proportional to its absolute temperature .we can refer it as another statement of?
Boyle’s law
Charles law
Ideal gas law
Avogadro’s’ law

The ring shape unsaturated hydrocarbon are known as _____
Aliphatic compounds
Aromatic compounds
Acyclic compounds
Isomers compounds

Find the power of convex lens, if it’s focal length of is 25cm
2.5 D
4 D
0.4 D
0.25 D

A man started his walk from main gate 0f Park and after completing two rounds of track of 100 meters in 10 minutes he came back to the main gate .what is value of his total displacement ?
Zero
10 meters
100 meters
200 meters

Tension in string due to gravity at always equal to _____of an object.

Mass
Weight
Momentum
Density

When ray of light enter from denser medium to rare medium it bend_____.
Away from normal
Towards normal
Perpendicular to normal
Parallel to normal

The rate of change of displacement is known as:
Speed
Velocity
Acceleration
Retardation

Metals are good conductor of heat and electricity because metals _____.
Gain electrons easily
Lose electrons easily
Have higher electronegativity
Are good oxidizing agent

When experimental results are in accordance with theoretical prediction this become:
A law
A theory
A hypothesis
An assumption

A fundamental quantity e.g. a length of one meter, has:
No error as it is by definition a perfect value
No error as it is an experimentally verified quantity so perfect
Error as it is an experimentally verified quantity so imperfect
Error as it is a theoretical value and so cannot be perfect

In H30 every bond has ___ ionic and ___ covalent character (percent)
70% 30%
66% 33%
50% 50%
40% 60%

The M.P of caustic soda is _____ degree centigrade
100
801
95
318

Concave mirror formed an inverted image if distance between mirror and object is _____.
Less than its focal length
Exactly at its focal length
More than its focal length

None of above

If under the action of a force on an accelerating body, the work done is maximum the direction of force and the displacement would be _____to each other
Opposite
Perpendicular
Identical
Insufficient information for an answer

Mass of astronaut is m=50kg .what is astronaut's mass on moon where value of g=1.6m/s2?
80 kg
50 kg
100 kg
32 kg

Some of energy radiated by sun is captured by earth but the normal surface temperature of earth remains about 300k.why does not the earth's temperature rise as it captures the sun's energy?
The earth radiates an amount of energy into space equal to the amount it receives.
The energy only raises the temperature of the upper atmosphere and never reaches the surface.
The earth reflects the sun's light.
The heat is carried away from the earth by convection currents.

The direction of the change of momentum is the same as the:
Displacement
Speed
Mass
Force

Which of the following is the fastest speed
30,000 km per day
300 km per minute
300 meters per second
300 millimeters per microsecond

A battery of car has stored ------ energy, it converts to electric energy when required.
Chemical energy
Potential energy
Thermal energy
Kinetic energy
A motion of a turbine is an example of:
Random motion
Translator motion
Vibratory motion
Circular motion

Among the equation of linear motion the time independent equation(s) is (are:
(i)and (ii)
(i) Only
(ii) and(iii)
(iii) Only

If pressure of gas increases 2 times at constant temperature, the final volume of gas would be _____

2 v
½ v
3 v
¼ v

A plane files west at a speed of 300 km per hour for one hour .it then turn south and files at the same speed of 300 km per hour for a further 1 ½ hours. Its average speed is:
100 km per hour
200 km per hour
300 km per hour
450 km per hour

Circular motion is consider as _____where movement is along circular path.
Translatory motion
Rotatory motion
Vibratory motion
Linear motion

In optical fiber the refractive index of core in comparison to that of cladding is:
Smaller
Greater
Equal
Minor

What three thing can light rays travel through?
Solids, liquid, gases
Air, water, outer space
Humans, plants, animals
Liquid, air, plants

A derived unit is created when:
Two or more fundamental units are added or subtracted
Two or more fundamental units are multiplied or divided
Two or more fundamental units are added and divided
Two or more fundamental units are subtracted and multiplied

The elements of group 18 are called _____
Normal element
Typical elements
Noble gases
Transition elements

A straight-line graph proportional between displacement and time indicates
Average speed
Uniform speed
Average velocity
Uniform velocity

Light enters in a human eye through a transparent membrane know as_____
Retina
Cornea
Pupil
Iris

Lens used simple microscope is:
Biconvex
Biconcave
Plano convex
Cylindrical

Which of the following group contain alkaline earth metals?
Group1
Group2
Group3
Group7

Gradient of line of velocity time graph is representing_____
Distance
Speed
Velocity
Acceleration
Circular motion is considered as_____ where movement is along circular path.
Translator motion
Rotatory motion
Vibratory motion
Linear motion

Water has an expansion which is considered as an anomalous behavior at which temperature range :
0 k to 10 k
273 k to 283 k
373 k to 383 k
-10 k to 0 k

The self-liking property of carbon is known as_____.
Sublimation
Hydrogenation
Carbonation
Catenation

Lakes to freeze from the top down due to:
The quantity of salt in water
The anomalous behavior of the expansion of water between O c and 4 c
The confinement properties of the boundaries of the lake
The high specific heat of water

Which of the following quantum number explain the shape of sub-shells in atomic orbitals?
Principal quantum number (n)

Azimuthal quantum number (l)
Magnetic quantum number(m)
Spin quantum number (s)
Magnification (positive) greater than unity point toward:
Real image
Virtual image
Neither real nor virtual image
Distorted image

An object of mass m is moving under a constant force Causing an acceleration. if the mass of the object is doubled and the force reduced to:
0.25 a
0.5 a
2a
a

if the pressure of a given gas is held constant its density is inversely proportional to its absolute temperature. we can refer its as another statement of?
Boyle's law
Charles law
Ideal gas law
Avogadro's' law

A parson sitting inside a moving train is in a state of……with respect of the other passengers
Uniform speed
Variable speed
Uniform acceleration
Rest

The minimum distance that needed human eyes to focus on an object is_____.
10cm
15cm
25cm
30cm

Reflection happens when light strikes and then ------a surface
Bounces off
Break
Reflect
Refract

When a name of chemical bond between two atoms where both bonding electrons by a single atom?
Ionic bond
Covalent bond
Coordinate covalent bond
Hydrogen bond

Friction can be reduced through use of ball bearings because:
Ball bearing make the surface smooth
Ball bearing convert kinetic into rolling friction

Ball bearing have no friction own
Ball bearing the make surface rough allowing better grip

The reaction in which one substance is replaced by another substance is called ___.
Substitution reaction
Addition reaction
Elimination reaction
Neutralization reaction

When two equal and opposite vectors are subtracted from one another the resultant is
Zero
Half of the original vector
The original vector
Twice the original vector

The acceleration of a moving body is always in the direction of the:
Velocity
Applied force
Reactive force
Resistive force

Which of the following is the fastest speed?
30,000km per day
300km per minute
300 meter per second
300 millimeters per microsecond

A parson walks 3km north, then moves 4km east. his displacement is
3km east of north
4km east of north
5km east of north
7 km east of north

Which of the following metals are corroded?
Cu
Fe
Ag
Ni

If a body does not change its position with respect of the observer then it is said to be in a state of:
Rest
Motion
Acceleration
Retardation

A vector is multiplied by four. The resultant will be …time the original vector
2
3
4
5

Which of the following statement/s is /are correct:
Optical fiber can bend light using the principal of law of refraction
Optical fiber the light beam using the principal of total internal refraction
Optical fiber cannot bend the light
Optical fiber can bend light using the principal of laws of reflection

The shielding effect in Na is
Greater than that of Li
Greater than that of K
Equal of that K
Equal of that Li

Gradient of line of velocity-time graph is representing _____.
Distance
Speed
Velocity
Acceleration

When light travels from glass to air, the speed of light will_____.
Decreases
Increases
Not change
Depend on angle of incidence

If the body covers equal distance in equal intervals of time, irrespective of the duration of the interval, the body is said to be:
Accelerating
Moving with uniform velocity
Moving with uniform speed
Decelerating

The unit of power is represented by
J S
J/S
W S
W/S

The color make up white light are called ------?
Prism
Energy waves
Visible spectrum
Rainbow

The non-metal which is liquid at room temperature_____.
Mercury iron bromine
Iron
Bromine
Lead

_____is a most reactive metal.

Zn
Au
Na
Cs

Metals are usually_____
Hard
Hard and ductile
Ductile and malleable
Hard, ductile and malleable

The naturally occurring resources of metal are known as _____.
Minerals raw materials
Mineral rocks
Mineral ores
Mineral deposit

The study of motion of objects without reference to mass and force is called:
Kinematics
Dynamics
Mechanics
General relativity

Due to which property metals are used in making of musical instruments like sitar and violin?
Conductivity
Malleability
Ductility

The principal focus point of human eyes is always_____.
Behind the retina
In front of retina
On retina
In between eye ball and retina

Till now, how many elements are known?
92
118
112
124

The energy of an atom in a compound_____.
Remains same
Higher than individual
Lesser than individual
Can not find out

Two objects X and Y are moving. If the speed of X is double that of Y and mass of X Is half of Y. the ration of their kinetic energies would be:
0.25

0.75
1.00
2.00
The mass number of carbons is C-12, it represents the_____.
Total number of protons =12
Total number of electrons =12
Total number of protons and electrons =12
Total number of protons and neutrons =12

An engineer design different machine. which is the least efficient?

Input energy	useful output	wastage
731J	468J	263J
450J	248J	202J
255J	153J	102J
510J	357J	153J

The refractive index of a denser medium with respect to a rarer medium is-----:
1
Greater than 1
Smaller than 1
Negative

A man started his walk from main gate of park and after completing two rounds of track of 100 meters in 10 minutes he came back to the main gate. What is value of his total displacement?
Zero
10 meters
100 meters
200 meters

Metals are good conductor of heat and electricity because metals_____.
Gain electrons easily
Lose electrons easily
Have higher electronegativity
Are good oxidizing agent

If you applied a force of 200 N on an object with mass m but the object does not move. We can say that __.
Newton second law of motion is not valid here
Newton 1st law of motion is not valid here
The object has too much mass
There is a force of 200N in the opposite direction

The blue cooler of ocean is due to____.
Reflection of light
Refraction of light
Absorption of light
Scattering of light

Brass (Zn +Cu) is an example of
Element
Compound

Mixture
Zinc cupper

A 15gm bullet is fired from a 7.5 kg gun at 380 m/s. the momentum of the gun will be:
5700 Ns
2850 Ns
5.7 Ns
2850000 Ns

A fundamental quantity e.g. A length of one meter, has:
No error as it is by definition a perfect value
No error as it is experimentally verified quantity so
Error as it is an experimentally verified quantity so imperfect
Error as it is theoretical value and so cannot be perfect

Which type of rays produced due to lionizations of atoms or molecules of the gas in discharge tube?
Negative
Positive
Neutral
No rays produced due to ionization

When experimental result are in accordance with theoretical prediction this becomes:
A law
A theory
A hypothesis
An assumption

The gas law giving the relationship between ‘’V’’ and ‘’P’’ of gas is
Dalton’s law
Charles’s law
Graham’s law
Boyle’s law

Which line correctly identifies the steam point on the scales of temperature: kelvin/k Celsius/ C
Fahrenheit/ F
273 0 32
273 100 212
373 0 32
373 100 212

The average power of an athlete of mass 60 kg in climbing a staircase 10 m high in seconds is approximately:
60 w
300 w
600 w
900 w

The number of maximum electrons in d-sub shell are
2
6
10
14

A fundamental quantity e.g. a length of one meter, has:
No error as it is by definition a perfect value
No error as it is an experimentally verified quantity so perfect.
Error as it is an experimentally verified quantity so imperfect.
Error as it is a theoretical value and so cannot be perfect

Metals are good conductor of heat and electricity because metals_____.
Gain electrons easily
Lose electrons easily
Have higher electronegativity
Are good oxidizing agent

As you move an object away from a convex mirror, its image becomes------- and moves towards-----:
Smaller, infinity
Smaller, focus
Enlarged, infinity
Enlarge, focus

Inverse of focal length is known as the _____of a lens:
Focus
Power
Power of accommodation
Far point

A physical quantity which requires a unit and a number to be described fully is known as a
Fundamental quantity
Vector
Derived quantity
Scalar

Example of derived unit is _____.
Current
Speed
Temperature
Quantity of substance

Specific heat capacity is the property of the substance per unit:
Mass
Temperature
Weight
Volume

When a person uses a convex lens as a simple magnifying glass, the object must be placed at a distance:

Less than one focal length
More than one focal length
Less than twice the focal length
More than twice the focal length

Lakes to freeze from the top down due to:
The quantity of salt in water
The anomalous behavior of the expansion of water between 0 C and 4 C
The confinement properties of the boundaries of the lake
The high specific heat of water

A 1000 kg car uses 250,000 J of fuel energy to increase its speed from 10 m/s to 20m/s. the efficiency of this fuel conversion:
40%
50%
60%
70%

An engineer designs different machines. Which is the most efficient?
Input energy useful output wastage
731 J 468 J 263 J
450 J 248 J 202 J
255 J 153 J 102 J
510 J 357 J 153 J

Two balls of different masses, and hence of deferent size, but of the same material, are thrown upwards at fall back to the ground. Ignoring air resistance the balls will fall to the ground
Simultaneously
Heavy ball first
Lighter ball first
Larger sized ball first
A battery of car has stored…….energy, which it convert to electric energy when required.
Chemical energy
Potential energy
Thermal energy
Kinetic energy
Which line represents the SI unit of force and its unit?
Kilogram meter kg m
Kilogram kg
Newton N

……..is used as a tonic medicine and in the manufacturing of ink and pigments
Ferrous sulphate
Ferrous fluoride
Ferric oxide
Ferrosoferric oxide

The fundamental unit of mass is:
Pound
Ounce
Kilogram

Gram

A body moving in a straight line is an example of:
Random motion
Translator motion
Vibratory motion
Circular motion

The amount of work done by a force of 5N pulling a mass of 5 kg, 5m along a rough floor in the direction of the applied force is
5 J
25 J
50 J
125 J

Normally when heat is added to a body it properties i.e. energy, temperature and volume changes, which line could best represent this:
Gains rises expands
Loses rises contracts
Gains falls contracts
Loses falls expands

If the body covers equal distances in equal intervals of time, irrespective of the duration of the interval, that body is said to be:
Accelerating
Moving with uniform velocity
Moving with uniform speed
Decelerating

The amount of energy released or absorbed when elections are added on a atom is known as_____.
Lionization energy
Electronegativity
Electron affinity
Activation energy

Circular motion is consider as_____ where movement is along circular path.
Translator motion
Rotatory motion
Vibratory motion
Linear motion

Two thin lenses of power +6 D and -2D are placed in contact with each other. Focal length of the combination is:
+ 4 m
-4 m
+ 0.25 m
-0.25 m
The self – linking property of carbon is known as_____.
Sublimation
Hydrogenation

Carbonation
catenation

A mass is projected vertically downwards. Which line could represent the correct energy conversion K.E. gravitational PE total energy

Increases increases increases

Increases decreases does not change

Decreases decreases decreases

Decreases increases does not change