

# Paid Practice Test Bundle 2 Paper 1

## Chemistry

Q 1

When animals inhale air, oxygen will move into the lungs due to difference in partial pressure of oxygen in lungs and atmosphere. This obeys

A

Pascal's law

B

Dalton's law

C

Charles's law

D

Bohr's law

Q 2

Intermolecular forces are also called as \_\_\_\_\_?

A

Chemical bond

B

Intramolecular force

C

Van der waal forces

D

Strong forces

Q 3

Le Chatelier Principle is about

A

Reaction Mixture

B

Reactants

C

Equilibrium Mixture

D

Products

Q 4

Methanol is prepared by compressing water gas mixture at pressure

A

3 atm

B

2 atm

C

45 atm

D

25 atm

Q 5

The break down of molecular ions from natural products give important information about

A

size

B

position

C

shape

D

structure

Q 6

The change in concentration of reactants or products per unit time is

A

rate constant

B

reaction speed

C

Rate of a reaction

D

All of these

Q 7

The compounds which are formed by the replacement of a hydrogen atom by a halogen is called as\_\_\_?

A

Alcohol

B

Alkyl halide

C

Carbonyl halide

D

Ethers

Q 8

The reaction in which one of the group of a compound is replaced by another group of atoms is called as\_\_\_\_\_?

A

Substitution

B

Elimination

C

Addition

	D
Condensation	
	Q 9
Acetic acid is soluble in;	
	A
Water, Alcohol, Ether	
	B
HCl, HBr, HI	
	C
Bromine water	
	D
All of these	
	Q 10
According to VBT, the essential condition for chemical bonding is that the orbitals of atoms participating in bond formation must	
	A
added	
	B
multiply	
	C
overlap	
	D
divide	
	Q 11
In Powdered form the angles and faces in a crystal are	
	A
Ruptured	
	B
Changed	
	C
Unchanged	
	D
None of these	
	Q 12
Metallic character depends on_____?	
	A
Electron Affinity	
	B
Ionization energy	
	C
Electronegativity	
	D
All of these	

Q 13

Which one of the following is a strong acid ?

A

HF

B

HI

C

HBr

D

HI

Q 14

Protein component of enzyme is called \_\_\_\_\_.

A

Coenzyme

B

Cofactor

C

Apo-enzyme

D

Prosthetic group

Q 15

Which of the following can not be prepared directly from acetic acid ?

A

Ethyl acetate

B

Acetamide

C

Acetyl Halide

D

Acetic anhydride

Q 16

What is the empirical formula for the following molecular formula  $C_5H_{12}$

A

$C_5H_{12}$

B

$C_5H_6$

C

$CH_2$

D

$C_{2.5}H_6$

Q 17

Before giving condensation product, ammonia and its derivatives produces \_\_\_\_\_ when react with carbonyls?

A

Alcohols

B

Carboxyl alcohol

C

Amino alcohol

D

None of these

Q 18

From which of the following ketone can be prepared?

A

Propyne

B

Secondary alcohol

C

Ca Acetate

D

All of these

Q 19

If a hydrogen atom remains in its first excited level, how many times will its radius be greater than Bohr's radius

A

twice

B

four times

C

same, same

D

eight times

Q 20

Which one of the following is neutral to litmus?

A

Phenol

B

Ethanol

C

Carboxylic acid

D

NaOH

Q 21

The formation of acid anhydride from carboxylic acid is a \_\_\_\_\_?

A

Dehydration reaction

B

Condensation reaction

C

Both a and b

D

None of these

Q 22

Which of the following alkyl halide give  $S_N1$  reactions?

A

1-chloropropane

B

2-chloropropane

C

n-butyl chloride

D

2-methyl,2-chloropropane

Q 23

Alkyl iodides can not be prepared directly by the halogenation of alkanes because ?

A

Iodine reacts slowly

B

Iodine reacts reversibly

C

HI formed reduces alkyl iodide again to starting material

D

All of these

Q 24

The rate of formation of ammonia is not economical at

A

Low temperature

B

Very high pressure

C

Both A and B

D

None of these

Q 25

The strength of intermolecular forces in liquids, solids and gases depends directly on

A

speed of atoms

B

motion of particles

distance b/w molecules	C
all of these	D
Q 26	
Sucrose is converted into glucose & fructose by:	A
Invertase	B
Urease	C
Glycolysis	D
None	
Q 27	
The sum of cationic and anionic radius in a crystal lattice is equal to	A
inter-titan distance R	B
inter ionic distance R	C
inter- cationic distance R+	D
inter-anionic distance R-	
Q 28	
Empirical formula of glucose $C_6H_{12}O_6$ is same with	A
acetaldehyde	B
formaldehyde	C
ethanol	D
acetone	
Q 29	
Crystal are obtained by Saturated Solution through	A
Sedimentation	B
Drying	C
Heating	

D

Cooling

Q 30

Methylated spirit is formed by the addition of

A

acetone

B

pyridine

C

1 % methanol

D

all of above

Q 31

It is very \_\_-to remove electron from a positively charged ion than a neutral atom due to increase in nuclear charge

A

easy

B

difficult

C

moderate

D

none of these

Q 32

When  $\text{CH}_3\text{CH}_2\text{MgBr}$  reacts with  $\text{CO}_2$  which of the following product is formed?

A

$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$

B

$\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$

C

$\text{CH}_3\text{CH}_2\text{COOH}$

D

$\text{CH}_3\text{CH}_2\text{CH}_2\text{Br}$

Q 33

Enthalpy of a system is given as \_\_\_\_\_?

A

$\Delta H = qv + w$

B

$H = E + PV$

C

$H = qp + PV$

D

H= E

Q 34

The ionic radii appeared to be a/an property

A

associative

B

multiplicative

C

additive

D

all of these

Q 35

In which of the following dipoles are not present ?

A

Water

B

HCl

C

Noble gases

D

Chloroform

Q 36

Brittleness of Ionic solids is due to the fact that Ions arrange themselves in way to,

A

Attract each other

B

Compress

C

Repel

D

overlap each other

Q 37

In order to get absolute alcohol following is added to absorb moisture

A

MgO

B

CaO

C

Co<sub>2</sub>

D

Cl<sub>2</sub>

Q 38

To remove an electron from an atom is always \_\_\_\_\_?

A

Exothermic process

B

Endothermic Process

C

Neutral

D

Energy wasted

Q 39

The rate of reaction

A

Increases as the reaction proceeds

B

Decreases as the reaction proceeds

C

Remains unchanged

D

None of these

Q 40

Decomposition of Water into Hydrogen and oxygen is a

A

Reversible Reaction

B

Endothermic Reaction

C

Exothermic Reaction

D

Oxidation Reaction

Q 41

London forces are present in

A

ammonia

B

water

C

kerosene oil

D

HCl

Q 42

In a voltaic cell ,two half cells actually separates

A

Two electrolytes

B

Anode and Cathode

C

Oxidation Half cell and Reduction half Cell

D

All of these

Q 43

Which of the following properties is not related to transition metals \_\_\_\_\_?

A

Complex formation

B

Color

C

Fixed valency

D

d-orbital

Q 44

Electrolyte can be in

A

Plasma state

B

Solution or Fused state

C

Solid form

D

Gaseous State

Q 45

Spectrum is the visual display or \_\_\_\_\_ of component of white light when it is passed through prism

A

rarefaction

B

radiation

C

collection

D

dispersion

Q 46

During reduction of aldehydes with  $\text{NaBH}_4$ , which of the following intermediate is formed ?

A

Carbanion

B

Carbocation

Carbene	C
Alkoxide ion	D
Q 47	
The nature of amorphous solid is	A
isotropic	B
anisotropic	C
mesotrophic	D
neotropic	D
Q 48	
In organic chemistry, we deal with	A
carbon	B
Hydrogen	C
Hydrocarbons	D
potassium	D
Q 49	
If a certain atom gains electrons its oxidation number will be	A
Negative	B
Positive	C
zero	D
Unity	D
Q 50	
Which gas among them shows maximum ideal behavior	A
Ammonia	B
Hydrogen	C
Helium	C

D

Radon

Q 51

Aldehydes and ketones can be obtained by the

A

reduction of alcohol

B

oxidation of alcohol

C

dehydration of alcohol

D

hydrolysis of alcohol

Q 52

Potential Energy of a system comes from the

A

Van der Waal forces

B

Bonds between molecules

C

Ionic Bonds

D

All of these

Q 53

Which one of the following alkali metals forms only normal oxide when it reacts with O<sub>2</sub>?

A

Lithium

B

Sodium

C

Potassium

D

Rubidium

Q 54

Rate of a reaction is dependent on

A

Reactant's Concentration

B

Product Concentration

C

Slowest Step

D

All of these

Q 55

By changing Pressure at equilibrium which value is changing

A

Kc

B

Kp

C

Equilibrium Position

D

All of these

Q 56

K<sub>2</sub> (Cu(CN)<sub>4</sub>) which one is correct

A

Potassium tetra cyano cuprate

B

Coordination number is 2

C

The ligand is positively charged

D

Central atom is present in the avionic sphere

## Biology

Q 57

Which of these cells is not present in phloem?

A

companion cell

B

sieve tube members

C

vessels

D

parenchyma

Q 58

Urethra and vagina have ----openings to the exterior:

A

common

B

independent

C

Both A and B

D

None of these

Q 59

The animals in which coelom is formed due to splitting of mesoderm are known as which of the following?

A

Pseudocoelom

B

Enterocoelous

C

Amphicoelous

D

Schizocoelous

Q 60

What type of molecule is Chlorophyll?

A

Inorganic

B

Cationic

C

Anionic

D

Organic

Q 61

What is the main cause of lung cancer?

A

Smoking

B

Cough

C

Pollutants

D

Mutagens

Q 62

Paramyxoviruses cause which disease?

A

influenza

B

smallpox

C

mumps and measles

D

AIDS

Q 63

The set of all genes in any population is termed as?

A

population pool

B

species pool

C

gene pool

D

all of these

Q 64

The ability to pass on genes is defined as which of the following?

A

differential reproduction

B

evolution

C

natural selection

D

fitness

Q 65

Glycolysis takes place in?

A

Nucleus

B

Cytosol

C

Mitochondria

D

Ribosomes

Q 66

A neuron located in the central nervous system that projects its axon outside the CNS is called:

A

Motor nerve

B

sensory nerve

C

Both A and B

D

Mixed nerve

Q 67

The path taken by the nerve impulses in a reflex is called a

A

Nerve cell	
	B
reflex arc	
	C
Receptor cells	
	D
Mixed nerve	
	Q 68
Cellular organelles that interact with hydrogen peroxide are called?	
	A
Glyoxysomes	
	B
Lysosomes	
	C
Ribosomes	
	D
Peroxisomes	
	Q 69
What is the name of the tube that carries the sperm from the testes to the urethra?	
	A
Penis	
	B
seminal vesicles	
	C
Prostate gland	
	D
sperm duct	
	Q 70
A structural component that is found in all viruses is?	
	A
envelope	
	B
DNA	
	C
Capsid	
	D
Tail Fibers	
	Q 71
What is the purpose of calcium in the muscles?	
	A
It helps move the myosin head into a high-energy position	
	B

It allows tropomyosin to be pulled away from the actin filament

C

both a and b

D

none of these

Q 72

The chief cells at the base of the gastric glands secrete the zymogen which is called?

A

trypsinogen

B

pepsin

C

trypsin

D

pepsinogen

Q 73

All enzymes are:

A

globular proteins

B

Fibrous proteins

C

Glycoproteins

D

Lipoproteins

Q 74

Cellular respiration is essentially what type of process?

A

Oxidation

B

Reduction

C

Redox

D

None of the above

Q 75

These all are inorganic compounds except

A

NO<sub>2</sub>

B

C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>

C

H<sub>2</sub>O

D

H<sub>2</sub>SO<sub>4</sub>

Q 76

Which of the following combination is an example of self replicating organelles?

A

Mitochondria and Ribosomes

B

Mitochondria and Nucleus

C

Mitochondria and Vacuole

D

Mitochondria and Chloroplast

Q 77

An enzyme is said to be denatured in the presence of?

A

no cofactor

B

low temperature

C

extremely high temperature

D

none of these

Q 78

cytochrome a is oxidised by which of the following in ETC?

A

carbon dioxide

B

oxygen

C

ATP

D

cytochrome a<sub>3</sub>

Q 79

All of the following are true for platyhelminthes except?

A

Flatworms

B

Triploblastic

C

Bilateral symmetry

D

Coelomate

Q 80

Maximum capacity of hemoglobin to absorb oxygen is:

A

19.6ml/100 ml blood

B

20 ml/100 ml blood

C

25 ml/100 ml blood

D

30 ml/100 ml blood

Q 81

Which conjugated molecule plays the most significant role in protein expression?

A

glycoproteins

B

glycolipids

C

Nucleohistones

D

DNA

Q 82

Who was the first to propose an objective definition of instincts in terms of animal behaviour?

A

wallace

B

lamark

C

lyell

D

darwin

Q 83

What is the significance of endospores?

A

They allow fungi to survive in extreme climates

B

They allow gram-negative bacteria to reproduce

C

They allow fungi to store nutrients that can survive extreme conditions

D

They are produced by gram-positive bacteria which can survive extreme conditions

Q 84

Which of the following processes had resulted in the production of different breeds of domestic dogs and pigeons?

A

natural selection

B

cross breeding

C

artificial selection

D

self breeding

Q 85

In the chest wall, the rib muscles are considered as

A

intercostal muscles

B

Pulmonary muscles

C

Both and A and B

D

Coastal muscles

Q 86

The genotype-phenotype distinction was proposed by?

A

darwin

B

mendell

C

Wilhelm Johannsen

D

none of these

Q 87

The rigidity of leaves and younger parts of the plants is contributed by?

A

microtubules

B

mitochondria

C

actin

D

glyoxysomes

Q 88

Sperms are produced in the testes and stored in?

A

testes

B

scrotal sacs

C

seminal vesicle

D

prostate gland

Q 89

In a dihybrid cross, what fraction of offspring will be homozygous for both traits?

A

1/2

B

1/4

C

1/8

D

1/16

Q 90

The numbers of capsomeres found in adenovirus capsid is?

A

162

B

200

C

252

D

155

Q 91

The total gestation period (pregnancy) is usually about:

A

28 days

B

250 days

C

280 days

D

300 days

Q 92

Vitamin which doesn't act as a coenzyme is?

A

vitamin c

B

vitamin b

C

vitamin b1

D

vitamin b2

Q 93

Which cells secrete pepsinogen?

A

Mucous

B

Parietal

C

Zymogen

D

Oxyntic

Q 94

Sarcoplasm of the muscle fibre is similar to

A

Cytoplasm of other cell

B

Nucleoplasm

C

Mitochondria

D

Cell membrane

Q 95

Which of the following constitute large organic molecules?

A

Cellulose

B

glucose

C

amino acids

D

all of these

Q 96

Skin colour in man is controlled by how many pairs of genes?

A

1

B

2

C

3

D

none of these

Q 97

sperms are nourished and activated through?

A

vas deferens

B

prostate gland

C

semen

D

all of these

Q 98

How many actin filaments surround each myosin filament?

A

2

B

4

C

6

D

8

Q 99

If more substrate to an already occurring enzymatic reaction is added more enzyme activity is seen because?

A

There is probably more substrate present than there is enzyme

B

There is probably more product present than either substrate or enzyme

C

The enzyme substrate complex is probably failing to form during the reaction

D

There is probably more enzyme available than there is substrate

Q 100

What does an icosahedral capsid consists of?

A

Hexagonal capsomeres

B

Pentagonal capsomeres

C

Triangular Capsomeres

D

Both A and B

Q 101

One of the most important molecule found in living organisms is ATP. What is its major function?

A

Energy source of the cell

B

coenzyme

C

cofactor

D

both a and b

Q 102

Animals like starfish have small groups of neurons in each arm connected to a ring of neurons in the centre. This type of nervous system is called \_\_\_\_\_ .

A

Centralized nervous system

B

Partially centralized nervous system

C

Diffuse nervous system

D

Partially diffuse nervous system

Q 103

Somatic cells of humans have how many pairs of chromosomes in total?

A

10

B

23

C

24

D

48

Q 104

End of menstrual cycle in old age is called?

A

andropause

B

gametopause

C

menopause

D

all of these

Q 105

The muscle contraction depends on:

A

Nerve impulse

B

energy

C

calcium

D

All of these

Q 106

Which virus causes the second major form of hepatitis?

A

Hepatitis A

B

Hepatitis B

C

Hepatitis C

D

Hepatitis D

Q 107

Which of the following is found in bacterial cells, but not in mature red blood cells?

A

Nucleus

B

DNA

C

cell membrane

D

mitochondria

Q 108

Which is not a necessary condition for the Hardy-Weinberg equation to be true?

A

No natural selection

B

No net migration of individuals into or out of the population

C

random mating

D

small population

Q 109

Which statement is incorrect?

A

Homologous organs are functionally different but structurally alike

B

Examples of homologous structures are arms of man, forelimb of cat, flipper of whale

C

Examples of analogous structures are wings of bats, birds and insects

D

Analogous organs are functionally different but structurally alike

Q 110

The structure of which bacteriophage resembles a tadpole?

A

T2

B

T4

C

Both

D

none

Q 111

Each Krebs's cycle forms how many molecules of NADH?

A

3

B

2

C

4

D

1

Q 112

Which term is used to refer to an inactive enzyme precursor?

A

apoenzyme

B

null enzyme

C

zymogen

D

inhibitor

Q 113

lecithin contains \_\_\_\_\_

A

Ethanolamine

B

Choline

C

Serine

D

Betaine

Q 114

Which type of cell would be the most appropriate for the study of chloroplasts?

A

conducting cell

B

pericycle cell

C

photosynthetic cell

D

all of these

Q 115

What is the chemical characteristic of auxins?

A

Indole propionic acid

B

Indole carboxylic acid.

C

Indole acetaldehyde

D

Indole acetic acid.

Q 116

Bacteriophages have been used widely in genetic research, since they are the smallest and simplest biological entities capable of?

A

self replication in host cell

B

duplication

C

self duplication

D

multiplication in host cell

Q 117

The cell membrane of a skeletal muscle cell is called:

A

Sarcoplasm

B

sarcolemma

	C
sarcomere	
	D
myofibrils	
	Q 118
The viral DNA or RNA is protected by	
	A
shell of lipids	
	B
shell of proteins	
	C
shell of carbohydrates	
	D
shell of amino acids	
	Q 119
The process of inspiration occurs as:	
	A
Lungs pull air inside	
	B
Passive transport of air takes place	
	C
Passive expansion of air takes place	
	D
Air is pushed inside	
	Q 120
Assuming that blood type is not a sex-linked trait, what is the probability that a mother with genotype "A/O" and a father with genotype "A/B" will have a child with type B blood?	
	A
50%	
	B
25%	
	C
75%	
	D
1	
	Q 121
To form a female zygote, the sperm cell must contribute which chromosome?	
	A
X	
	B
2X	
	C
Y	

D

XY

Q 122

Periplaneta belongs to which phylum?

A

Mollusca

B

Annelida

C

Echinodermata

D

Arthropoda

Q 123

The animals which belongs to division Radiata is/are?

A

triploblastic

B

diploblastic

C

radioblast

D

all of these

Q 124

Which of the following best describes the impact of purifying selection?

A

It increases frequency of an allele

B

It is the same as disruptive selection

C

It increases genetic diversity

D

It removes variation from the population

## Physics

Q 125

The atmosphere around the earth is held by

A

clouds

B

winds

C

gravity

D

none of these

Q 126

Spectral lines is like a \_\_\_\_\_ of absorbed or emission energy in a spectrum

A

charged pattern

B

fingerprint pattern

C

discharged pattern

D

None of these

Q 127

Magnetic flux is given by

A

dot product of magnetic field and area vector

B

cross product of magnetic field and area vector

C

both of these

D

none of these

Q 128

In a stationary wave, the distance between adjacent nodes is equal to:

A

$\lambda$

B

$2\lambda$

C

$\lambda/2$

D

$\lambda/4$

Q 129

In a stationary wave, the distance between a node and an adjacent antinodes is equal to:

A

$\lambda$

B

$2\lambda$

C

$\lambda/2$

D

$\lambda/4$

Q 130

Which of the following is equivalent to a temperature 150K?

A

123 C

B

-123 C

C

423 C

D

-423 C

Q 131

In Thermodynamics zeroth law is related with

A

Work

B

Energy

C

Thermal equilibrium

D

Entropy

Q 132

The radiation hazards are due to

A

radioactive elements

B

non radioactive elements

C

any of a or b

D

there are no radiation hazards

Q 133

Decrease in velocity per unit time is called

A

acceleration

B

positive acceleration

C

deceleration

D

uniform acceleration

Q 134

If the nuclear radius of Al-27 is 3.6 fm, the approximate nuclear radius of Cu-64 in fermi is

A

1.2 gm

B

2.4 fm

C

3.6 fm

D

4.8 fm

Q 135

Force acting on a positive charge is always:....

A

in the direction opposite to electric field

B

in the direction of electric field

C

in the direction perpendicular to electric field

D

in the direction perpendicular to the velocity of charge

Q 136

What is the duration of one cycle known as

A

period

B

cycle

C

instantaneous value

D

sin wave

Q 137

Which of the following is the rapid process

A

conduction

B

radiation

C

convection

D

all of these

Q 138

Average dc Voltage across the load in terms of  $V_{max}$  is

A

0.532  $V_{\max}$

B

0.637  $V_{\max}$

C

0.759  $V_{\max}$

D

0.437  $V_{\max}$

Q 139

According to Wien's law temperature and wavelength are \_\_\_\_ related

A

equal

B

inversely

C

directly

D

none of these

Q 140

For an isothermal process, the first law of thermodynamics can be written as:...

A

heat absorbed = work done on the system

B

heat absorbed = work done by the system

C

heat released = work done by the system

D

heat released = work done by the system + change in internal energy

Q 141

SI unit of absorbed dose is

A

Gray

B

Roentgen

C

Curie

D

Rem

Q 142

Two tuning forks produces 6 beats per second. Which of the following are possible frequencies of these tuning forks.

A

12 Hz and 24 Hz

B

8 Hz and 14 Hz

C

10 Hz and 20 Hz

D

66 Hz and 11 Hz

Q 143

A charge is moving with velocity  $v$ , it enters a uniform electric field  $E$ . The direction of  $v$  and  $E$  are not parallel. What is the path of the charge particle inside the electric field?

A

parabolic

B

circular

C

parallel to  $v$

D

parallel to  $E$

Q 144

An uncharged conductor has

A

electrons

B

protons

C

holes

D

all of these

Q 145

Which of this is constant in isothermal process?

A

total heat

B

work done

C

Entropy

D

Internal energy

Q 146

A wheel whose radius is 50 cm rotates at an angular velocity of 6 rad/sec. The linear velocity of the rim of the wheel is closest to

A

1.5 m/s

B

4.5 m/s

C

3.0 m/s

D

7.5 m/s

Q 147

Which isotope has highest momentum when moving with same velocity

A

Protium

B

deuterium

C

tritium

D

all of these have same momentum

Q 148

A man hold a bucket by applying force 10 N, then moves a horizontal distance of 5 m and vertical distance of 10 m, find out the net work done

A

100 J

B

150 J

C

50 J

D

200 J

Q 149

The speed of photons in vacuum is \_\_\_\_ than in liquid water

A

higher

B

smaller

C

equal

D

none of these

Q 150

$E=F/q$  is the formula for?

A

Electrical field strength

B

Electrical field intensity

C

Both of them

D

None of them

Q 151

A reversible engine works between two temperatures whose difference is  $100^{\circ}\text{C}$ . If it absorbs  $746\text{ J}$  of heat from the source and rejects  $546\text{ J}$  to the sink, calculate the temperature of the source and the sink.

A

$100^{\circ}\text{C}$ ,  $20^{\circ}\text{C}$

B

$100^{\circ}\text{C}$ ,  $0^{\circ}\text{C}$

C

$80^{\circ}\text{C}$ ,  $0^{\circ}\text{C}$

D

$80^{\circ}\text{C}$ ,  $20^{\circ}\text{C}$

Q 152

\_\_\_\_\_ is a source of electrical energy having fixed polarity and terminals

A

Motor

B

Metals

C

Battery

D

Generator

Q 153

If a force of  $2\text{ N}$  is applied on charge of Coulomb, the electric field becomes

A

$3/2\text{ N/C}$

B

$2/3\text{ N/C}$

C

$1/2\text{ N/C}$

D

none of these

Q 154

Maximum efficiency of half wave rectifier is

A

$80.6\%$

B

$40.60\%$

C

70%

D

50%

Q 155

Electric generator converts \_\_\_\_\_ to \_\_\_\_\_ energy

A

electric, mechanical

B

mechanical , electric

C

mechanical , potential

D

not enough information

Q 156

A three dimensional image is achieved by scanning the surface with a focused beam of electrons

A

SEM

B

TEM

C

XRD

D

none of these

Q 157

A wave is produced by

A

Disturbance

B

Heating

C

Freezing

D

Clapping

Q 158

A circuit that adds positive or negative dc voltage to an input sine wave is called

A

Clamper

B

clipper

C

diode clamp

D

limiter

Q 159

The forces of friction causes

A

excitations

B

de-excitations

C

magnetization

D

none of these

Q 160

If a wheel of radius  $r$  turns through an angle of  $30^\circ$ , then the distance through which any point on its rim moves is?

A

$\pi/3r$

B

$\pi r/6$

C

$\pi/30r$

D

$\pi/180r$

Q 161

The relation between linear and angular acceleration is:

A

$a = \alpha \times r$

B

$\alpha = a \times r v$

C

$v = a \times r$

D

$r = \alpha \times v$

Q 162

Faraday's law explains how electric field will interact with

A

electric field

B

magnetic field

C

battery

D

none of these

Q 163

If the peak to peak voltage is 10V, calculate the peak voltage.

A

2V

B

10V

C

4V

D

5V

Q 164

A charge of 2 C placed in electric field of 10 N/C what will be the work done in moving charge a distance of 5 m

A

100 J

B

50 J

C

150 J

D

200 J

Q 165

If 1 ampere current will flow in 5m conductor for 1 hour the charge flow will be

A

5C

B

18000C

C

1C

D

3600C

Q 166

In microwave ovens \_\_\_\_\_ is used to heat the food

A

x-rays

B

beta rays

C

gamma rays

D

electromagnetic rays

Q 167

A constant force of 20N is applied in horizontal direction and distance travelled in the direction of force is 5m, then work done is

A

200 J

B

50 J

C

20 J

D

100 J

Q 168

If the velocity of particle is varying linearly with time then shape of d-t curve would be

A

linear

B

quadratic

C

cubic

D

decreasing linearly

Q 169

The secondary turns of which of the following transformers is always kept closed for \_\_\_\_\_ transformer

A

power

B

voltage

C

current

D

step down

Q 170

The charge and mass of photon is

A

0,0

B

1+,0

C

1-,0

D

1,1

Q 171

Electrical power is given by  $P =$

VI	A
$I^2 R$	B
$V^2 / R$	C
all	D
Q 172	
Efficiency of heat engine in Terms of Temperature of reservoir and sink is defined as	
$T_1/T_2$	A
$1+T_1/T_2$	B
$1-T_1/T_2$	C
$T_2/T_1$	D
Q 173	
The angular acceleration becomes four times when	
$\alpha=2, r=2$	A
$\alpha=4, r=4$	B
$\alpha=3, r=0$	C
$r=0, \alpha =0$	D
Q 174	
A body at temperature T radiates heat according to relation	
$T^2$	A
$T^4$	B
$T^{-4}$	C
none of these	D
Q 175	
A ball is released from the top of the tower, the ratio of work done by the gravity in first, second and third second of the motion	
1 : 2 : 3	A

B

1 : 4 : 9

C

1 : 3 : 5

D

1 : 5 : 3

Q 176

If  $^{238}\text{U}$  decay two gamma particles the new atomic number will be

A

$^{238}\text{U}$

B

$^{234}\text{U}$

C

$^{237}\text{U}$

D

none of these

Q 177

Half wave voltage multiplier can provide any degree of voltage multiplication by cascading diodes and capacitors.

A

any doubler

B

any tripler

C

any multiplication

D

none of them

Q 178

What is the de Broglie wavelength associated with an electron, accelerated through a potential difference of 200 volts?

A

1nm

B

0.5nm

C

0.0056 nm

D

0.086 nm

Q 179

The phase angle between two points is  $3\pi$ . The distance between these points is 15 cm. What is the wavelength of the wave?

A

30 cm

B

45 cm

C

5 cm

D

10 cm

Q 180

Two equal and opposite charges separated by a small distance are said to constitute:....

A

a magnetic dipole

B

an electric dipole

C

a couple

D

an ion

## English

Q 181

Choose the correct sentence.

A

Huda watched the news on the BBC.

B

Huda watched the news on the BBC?

C

Huda watched the news on the bbc.

D

Huda, watched the news, on the BBC.

Q 182

Choose the correct spelling of the word

A

untill

B

until

C

untel

D

antil

Q 183

I borrowed \_\_\_\_\_ pencil from your pile of pencils and pens.

A

a

B

an

C

the

D

no article

Q 184

This is \_\_\_\_\_ good company to work with.

A

a

B

an

C

the

D

no article

Q 185

Asif tried to stop the car but the \_\_\_\_\_ did not work and he hit a pole.

A

brakes

B

crossroads

C

tires

D

controls

Q 186

The teacher \_\_\_\_\_ them an hour for their painting.

A

allowed

B

has allowed

C

is allowing

D

allows

Q 187

would not

A

would'nt

B

wouldn't

C

woul'dnt

D

wouldnt'

Q 188

I \_\_\_\_\_ Karachi by the next week.

A

shall have visited

B

shall be visited

C

shall has visit

D

none

Q 189

Choose the correct spelling of the word

A

cafine

B

caffiene

C

caffine

D

caffeine

Q 190

It is necessary to \_\_\_\_\_ standards are maintained.

A

control

B

influence

C

ensure

D

insure

Q 191

where is

A

wheres

B

where's

C

wheres'

D

wher'es

Q 192

The students cleaned up after they finished the experiment.

A

complex

B

simple

C

compound

D

None

Q 193

Rahul and his friends \_\_\_\_\_ also invited to the party.

A

is

B

was

C

had

D

were

Q 194

sentiment

A

practical

B

emotion

C

dispassionate

D

realistic

Q 195

She \_\_\_\_\_ (shriek) loudly when she saw the ghost.

A

shriek

B

shrieks

C

shrieked

D

shrieking

Q 196

She hoped to find a new job. One that would let her earn money during the school year.

A

job. One that

B

job. The kind that

C

job, one that

D

job, so that it

Q 197

Choose the correct sentence.

A

The colors in the curtains are; yellow orange beige and tan.

B

The colors in the curtains are yellow, orange, beige and tan.

C

The colors in the Curtains are yellow, orange, beige and tan.

D

The colors in the curtains are yellow orange beige and tan.

Q 198

\_\_\_\_\_ man is mortal.

A

A

B

An

C

The

D

No article

Q 199

Choose the correct spelling of the word

A

aniversary

B

anniversery

C

anniversary

D

aniversry

Q 200

Choose the correct tense?

A

I went to school yesterday.

B

I go to school yesterday

C

I have gone to school yesterday

D

I come to school yesterday.

## Logical Reasoning

Q 201

The hotel is two blocks east of the drugstore. The market is one block west of the hotel. The drugstore is west of the market. If the first two statements are true, the third statement is

A

True

B

FALSE

C

maybe

D

unresolved

Q 202

Statements : All fish are tortoise. No tortoise is a crocodile. Conclusions : I. No crocodile is a fish. II. No fish is a crocodile.

A

Only conclusion II follows

B

Either I or II follows

C

Neither I nor II follows

D

Both I and II follow

Q 203

Statements : Some pastries are toffees. All toffees are chocolates. Conclusions : I. Some chocolates are toffees. II. Some toffees are not pastries.

A

A. Only conclusion I follows

B

Only conclusion II follows

C

Either I or II follows

D

Neither I nor II follows

Q 204

I. There are orders by the high court to clean Karachi. II. More than 500 people died in Karachi due to land pollution.

A

Statement I is the cause and statement II is its effect.

B

Statement II is the cause and statement I is its effect.

C

Both statements I and II are independent causes

D

Both statements I and II are the effects of independent cause.

Q 205

If the value of  $B=16$ ,  $E=64$ ,  $K=256$ , then  $O=?$

A

526

B

1024

C

834

D

1012

Q 206

Statement Should there be a total ban on tobacco products and smoking in India? Arguments (I) Yes. It is wrong to smoke away millions of money. (II) No. It will throw thousands of workers in the tobacco industry out of employment. (III) No. The government will lose huge amount of money as it will not earn by way of taxes on these products.

A

None is strong

B

Only I and II are strong

C

Only II is strong

D

Only II and III are strong

Q 207

Statements All apples are bananas. No banana is a mango. Some mangoes are oranges. Conclusions (I) All oranges can never be bananas. (II) Some mangoes are apples.

A

Only conclusion (I) follows

B

Only conclusion (II) follows

C

Both conclusions follow	
	D
Both of them do not follow	
	Q 208
Discernible and Palpable have _____ number of same letter	
	A
2	
	B
3	
	C
5	
	D
4	
	Q 209
The high school math department needs to appoint a new chairperson, which will be based on seniority. Ms. West has less seniority than Mr. Temple, but more than Ms. Brody. Mr. Rhodes has more seniority than Ms. West, but less than Mr. Temple. Mr. Temple doesn't want the job. Who will be the new math department chairperson?	
	A
Mr. Rhodes	
	B
Mr. Temple	
	C
Mr. West	
	D
Mr. brody	
	Q 210
What will be the meaning of 'walkaway'? If mignelasan means cupboard Lasanpoen means boardwalk Cuopdansa means Pullman1	
	A
Lasandansa	
	B
Poeinmigen	
	C
Poenforec	
	D
Cuopisel	

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