CUET UG Exam May - June 2023

Application No	
Candidate Name	
Roll No	
Test Date	23/05/2023
Test Time	3:30 PM - 6:30 PM

Section : **Chemistry**

Q.1

Which aldehyde is used to preserve biological specimens?

1. Acetaldehyde
2. Benzaldehyde
3. Butanal
4. Formaldehyde

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866435**
Option 1 ID : **63238625737**
Option 2 ID : **63238625738**
Option 3 ID : **63238625739**
Option 4 ID : **63238625740**
Status : **Answered**
Chosen Option : **4**

Q.2

Sulphur molecule at room temperature is

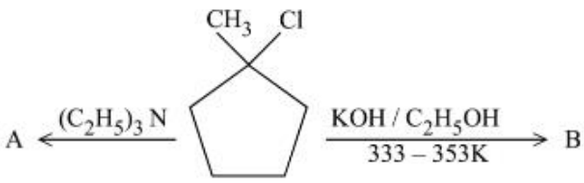
1. Diatomic
2. Tetratomic
3. Triatomic
4. Octatomic

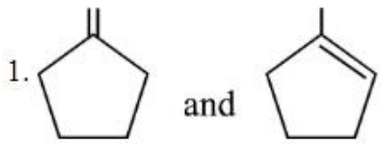
Options 1. 1
2. 2
3. 3
4. 4

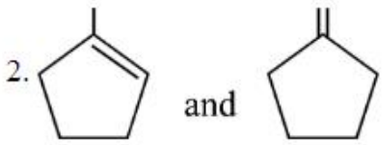
Question Type : **MCQ**
Question ID : **6323866442**
Option 1 ID : **63238625765**
Option 2 ID : **63238625766**
Option 3 ID : **63238625767**
Option 4 ID : **63238625768**
Status : **Answered**
Chosen Option : **3**

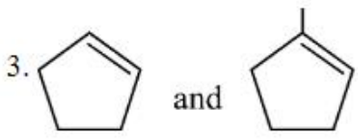
Q.3

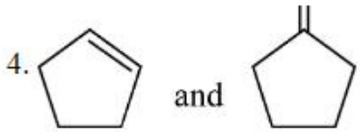
Identify A and B respectively in the following equation.



1. 

2. 

3. 

4. 

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866452**
Option 1 ID : **63238625805**
Option 2 ID : **63238625806**
Option 3 ID : **63238625807**
Option 4 ID : **63238625808**
Status : **Answered**
Chosen Option : **4**

Q.4

$E^{\circ}_{K^+/K} = -2{\cdot}93V, E^{\circ}_{Ag^+/Ag} = 0{\cdot}8V, E^{\circ}_{Cu^{2+}/Cu} = 0{\cdot}34V,$

$E^{\circ}_{Ni^{2+}/Ni} = -0{\cdot}25V, E^{\circ}_{Li^+/Li} = -3{\cdot}05V$

Arrange these following metals in increasing order of their reducing power.

A. K
B. Ag
C. Cu
D. Ni
E. Li

Choose the correct answer from the options given below:

1. B < C < A < D < E

2. B < C < E < A < D

3. B < C < D < A < E

4. B < C < A < E < D

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866434**
Option 1 ID : **63238625733**
Option 2 ID : **63238625734**
Option 3 ID : **63238625735**
Option 4 ID : **63238625736**
Status : **Answered**
Chosen Option : **2**

Q.5

Which one of the following ligands forms a chelate?

1. Cyanide

2. Water

3. Oxalate

4. Chloride

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866443**
Option 1 ID : **63238625769**
Option 2 ID : **63238625770**
Option 3 ID : **63238625771**
Option 4 ID : **63238625772**
Status : **Answered**
Chosen Option : **1**

Q.6 Pentan-2-one and pentan-3-one can be distinguished by

1. Iodoform test

2. Neutral $FeCl_3$ test

3. Blue litmus test

4. Lucas reagent test

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **63238611887**
Option 1 ID : **63238647545**
Option 2 ID : **63238647546**
Option 3 ID : **63238647547**
Option 4 ID : **63238647548**
Status : **Answered**
Chosen Option : **2**

Q.7

Arrange the following hydrides in decreasing order of their thermal stability.

A. H_2S
B. H_2Se
C. H_2O
D. H_2Te
E. H_2Po

Choose the correct answer from the options given below:

1. E > C > B > D > A

2. C > A > B > D > E

3. E > D > B > A > C

4. C > B > A > E > D

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866438**
Option 1 ID : **63238625749**
Option 2 ID : **63238625750**
Option 3 ID : **63238625751**
Option 4 ID : **63238625752**
Status : **Answered**
Chosen Option : **1**

Q.8

Which of the following reactions show that glucose contains five 'OH' groups?

1. Glucose $\xrightarrow[\Delta]{HI}$ n-Hexane

2. $\begin{array}{l}CHO\\|\\(CHOH)_4\\|\\CH_2OH\end{array} \xrightarrow[\text{anhydride}]{\text{Acetic}} \begin{array}{l}CHO\\|\\(CHOCOCH_3)_4\\|\\CH_2OCOCH_3\end{array}$

3. $\begin{array}{l}CHO\\|\\(CHOH)_4\\|\\CH_2OH\end{array} \xrightarrow[\text{Water}]{Br_2}$ Gluconic acid

4. Glucose $\xrightarrow{HNO_3}$ Saccharic acid

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866463**
Option 1 ID : **63238625849**
Option 2 ID : **63238625850**
Option 3 ID : **63238625851**
Option 4 ID : **63238625852**
Status : **Answered**
Chosen Option : **4**

Q.9 Match List I with List II

LIST I		LIST II	
A.	Stephen reduction	I.	$PhCOCl \xrightarrow[Pd/BaSO_4]{H_2} PhCHO + HCl$
B.	Clemensen reduction	II.	$\diagdown\!\!\diagup C=O + HCl \xrightarrow[Hg]{Zn} \diagdown\!\!\diagup CH_2 + H_2O$
C.	Wolf Kishner reduction	III.	$RCN \xrightarrow[SnCl_2]{HCl} RCH=NH \xrightarrow{H_3O^+} RCHO$
D.	Rosenmund reduction	IV.	$\diagdown\!\!\diagup C=O \xrightarrow{NH_2NH_2} \diagdown\!\!\diagup C=N.NH_2 \xrightarrow[glycol]{KOH} \diagdown\!\!\diagup CH_2 + N_2$

Choose the correct answer from the options given below:

1. A-III, B-II, C-IV, D-I

2. A-III, B-II, C-I, D-IV

3. A-II, B-III, C-I, D-IV

4. A-II, B-III, C-IV, D-I

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **63238611886**
Option 1 ID : **63238647541**
Option 2 ID : **63238647542**
Option 3 ID : **63238647543**
Option 4 ID : **63238647544**
Status : **Answered**
Chosen Option : **2**

Q.10

Increasing order of reducing power of following hydrides would be

A. SbH_3
B. AsH_3
C. NH_3
D. PH_3
E. BiH_3

Choose the correct answer from the options given below:

1. $E < A < B < D < C$

2. $C < D < B < A < E$

3. $C < D < A < B < E$

4. $A < E < D < B < C$

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866436**
Option 1 ID : **63238625741**
Option 2 ID : **63238625742**
Option 3 ID : **63238625743**
Option 4 ID : **63238625744**
Status : **Answered**
Chosen Option : **1**

Q.11

Aspartame is used in cold foods and soft drinks even though it is roughly 100 times as sweet as cane sugar and can pose a health hazard because :

1. It is stable at cooking temperature.

2. It is a monomer.

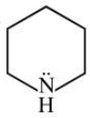
3. It is bitter in taste.

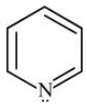
4. It is unstable at cooking temperature.

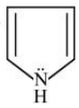
Options 1. 1
2. 2
3. 3
4. 4

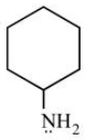
Question Type : **MCQ**
Question ID : **6323866447**
Option 1 ID : **63238625785**
Option 2 ID : **63238625786**
Option 3 ID : **63238625787**
Option 4 ID : **63238625788**
Status : **Answered**
Chosen Option : **3**

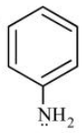
Q.12 Nitrogen containing compounds are basic in nature & their basic strength depends on ease of availability of lone pair of electrons on nitrogen atoms. For the following nitrogen containing compounds what will be correct order of basicity?

A. 

B. 

C. 

D. 

E. 

Choose the correct answer from the options given below:

1. A > B > D > C > E
2. B > A > D > E > C
3. B > D > A > C > E
4. A > D > B > E > C

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866456**
Option 1 ID : **63238625821**
Option 2 ID : **63238625822**
Option 3 ID : **63238625823**
Option 4 ID : **63238625824**
Status : **Answered**
Chosen Option : **2**

Q.13

Helium and element 'X' have outer electron configuration of ns^2. Identify the element 'X'.

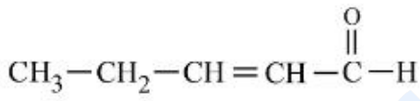
1. Na
2. B
3. Be
4. Ne

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866461**
Option 1 ID : **63238625841**
Option 2 ID : **63238625842**
Option 3 ID : **63238625843**
Option 4 ID : **63238625844**
Status : **Answered**
Chosen Option : **1**

Q.14

Correct IUPAC name of



is:

1. pent-2-enal
2. pent-2-enol
3. pent-3-enal
4. pent-3-enol

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866441**
Option 1 ID : **63238625761**
Option 2 ID : **63238625762**
Option 3 ID : **63238625763**
Option 4 ID : **63238625764**
Status : **Answered**
Chosen Option : **1**

Q.15

What amount of bromine will be required to convert 6 g of phenol into 2,4,6-tribromophenol?

1. 30.63 g
2. 40.64 g
3. 20. 38 g
4. 15.63 g

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866468**
Option 1 ID : **63238625869**
Option 2 ID : **63238625870**
Option 3 ID : **63238625871**
Option 4 ID : **63238625872**
Status : **Answered**
Chosen Option : **2**

Q.16

The osmotic pressure of a solution prepared by dissolving 50 mg of H_2SO_4 in 2 liters of water at 25℃ will be

1. 5.2700 atm
2. 0.0187 atm
3. 187.3 atm
4. 0.527 atm

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866432**
Option 1 ID : **63238625725**
Option 2 ID : **63238625726**
Option 3 ID : **63238625727**
Option 4 ID : **63238625728**
Status : **Answered**
Chosen Option : **4**

Q.17

Which of the following expression is correct for the rate of reaction given below?

$$5\ Br^-(aq) + BrO_3^-(aq) + 6H^+(aq) \longrightarrow 3\ Br_2(aq) + 3\ H_2O(l)$$

1. $\frac{\Delta[Br^-]}{\Delta t} = 5\frac{\Delta[H^+]}{\Delta t}$
2. $\frac{\Delta[Br^-]}{\Delta t} = \frac{6}{5}\frac{\Delta[H^+]}{\Delta t}$
3. $\frac{\Delta[Br^-]}{\Delta t} = \frac{5}{6}\frac{\Delta[H^+]}{\Delta t}$
4. $\frac{\Delta[Br^-]}{\Delta t} = 6\frac{\Delta[H^+]}{\Delta t}$

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866460**
Option 1 ID : **63238625837**
Option 2 ID : **63238625838**
Option 3 ID : **63238625839**
Option 4 ID : **63238625840**
Status : **Answered**
Chosen Option : **1**

Q.18

The complex $[Co(NH_3)_4(NO_2)_2]Cl$ exhibits.

A. Coordination isomerism
B. Linkage isomerism
C. Solvate isomerism
D. Ionisation isomerism
E. Geometrical isomerism

Choose the correct answer from the options given below:

1. B, D and E only

2. B, A and D only

3. C, A and D only

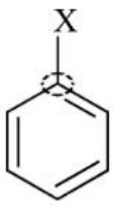
4. D, E and C only

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866446**
Option 1 ID : **63238625781**
Option 2 ID : **63238625782**
Option 3 ID : **63238625783**
Option 4 ID : **63238625784**
Status : **Answered**
Chosen Option : **4**

Q.19

What will be the hybridisation of highlighted carbon in the given haloarene



1. sp^2
2. sp^3
3. sp
4. sp^3d

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866454**
Option 1 ID : **63238625813**
Option 2 ID : **63238625814**
Option 3 ID : **63238625815**
Option 4 ID : **63238625816**
Status : **Answered**
Chosen Option : **1**

Q.20

Potassium (K) and Rubidium (Rb) forms

1. Suboxides
2. Peroxides
3. Superoxides
4. Dioxides

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866464**
Option 1 ID : **63238625853**
Option 2 ID : **63238625854**
Option 3 ID : **63238625855**
Option 4 ID : **63238625856**
Status : **Answered**
Chosen Option : **2**

Q.21 Which of the following hormones is produced under the condition of stress which stimulates glycogenolysis in the liver of human beings ?

1. Thyroxin
2. Estradiol
3. Adrenaline
4. Insulin

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866457**
Option 1 ID : **63238625825**
Option 2 ID : **63238625826**
Option 3 ID : **63238625827**
Option 4 ID : **63238625828**
Status : **Answered**
Chosen Option : **3**

Q.22 What does a negative E° (standard reduction potential) value of a redox couple indicate?

1. Redox couple is a stronger reducing agent than couple H^+/H_2 couple.
2. Redox couple is a weaker reducing agent than the H^+/H_2 couple.
3. Redox couple is a stronger oxidising agent than the H^+/H_2 couple.
4. Redox couple carry equivalent oxidising power as H^+/H_2 couple.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866458**
Option 1 ID : **63238625829**
Option 2 ID : **63238625830**
Option 3 ID : **63238625831**
Option 4 ID : **63238625832**
Status : **Answered**
Chosen Option : **4**

Q.23

Which of the following statement is correct about the half life period?

A. It is proportional to initial concentration of zero order reaction.
B. Half life period can be used to determine the order of the reaction.
C. Half life period for I^{st} order reaction is independent of concentration.
D. Catalyst does not affect half life time period.

1. A and B only

2. A, B and D only

3. A, B and C only

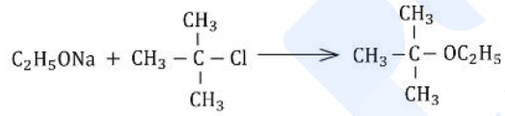
4. B, C and D only

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866440**
Option 1 ID : **63238625757**
Option 2 ID : **63238625758**
Option 3 ID : **63238625759**
Option 4 ID : **63238625760**
Status : **Answered**
Chosen Option : **2**

Q.24

The following is not an appropriate reaction for preparation of t-butyl ethyl ether because :



1. Sodium ethoxide is a weak base

2. Alkyl halide is tertiary in nature

3. Sodium ethoxide is a strong base

4. The ether formed is very bulky

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866466**
Option 1 ID : **63238625861**
Option 2 ID : **63238625862**
Option 3 ID : **63238625863**
Option 4 ID : **63238625864**
Status : **Answered**
Chosen Option : **3**

Q.25

For the equimolal solutions, increasing order of osmotic pressure is

A. 1 m C_6H_5COOH
B. 1 m $BaCl_2$
C. 1 m KCl
D. 1 m glucose
E. 1 m H_3PO_4

Choose the correct answer from the options given below:

1. A < D < C < B < E

2. E < B < C < D < A

3. A < B < C < D < E

4. E < C < B < D < A

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866467**
Option 1 ID : **63238625865**
Option 2 ID : **63238625866**
Option 3 ID : **63238625867**
Option 4 ID : **63238625868**
Status : **Answered**
Chosen Option : **1**

Q.26

In Cu – Ag electrochemical cell Cu acts as

1. Anode
2. Cathode
3. Salt bridge
4. Electrolyte

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866469**
Option 1 ID : **63238625873**
Option 2 ID : **63238625874**
Option 3 ID : **63238625875**
Option 4 ID : **63238625876**
Status : **Answered**
Chosen Option : **4**

Q.27

If we plot graph for first order reaction involving reactant R, then it will be a straight line if plotted for :

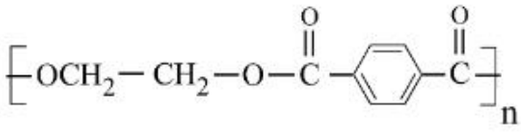
1. $\frac{[R]}{[R]_0}$ against time, t
2. $[R]_0$ against time, t
3. $\log \frac{[R]}{[R]_0}$ against time, t
4. [R] against time, t

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866465**
Option 1 ID : **63238625857**
Option 2 ID : **63238625858**
Option 3 ID : **63238625859**
Option 4 ID : **63238625860**
Status : **Answered**
Chosen Option : **1**

Q.28

What is the name of given polymer?



1. Teflon
2. Nylon 6
3. Terylene
4. Polyacrylonitrile

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866444**
Option 1 ID : **63238625773**
Option 2 ID : **63238625774**
Option 3 ID : **63238625775**
Option 4 ID : **63238625776**
Status : **Answered**
Chosen Option : **3**

Q.29

Identify the reagent which can be used to convert benzamide into aniline in a single step:

1. $NaNO_2$ + dil. HCl at 0°C
2. I_2 + aq.NaOH
3. Br_2 + aq. NaOH
4. Br_2 + CH_3COOH

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866439**
Option 1 ID : **63238625753**
Option 2 ID : **63238625754**
Option 3 ID : **63238625755**
Option 4 ID : **63238625756**
Status : **Answered**
Chosen Option : **1**

Q.30

Arrange the following carboxylic acids in increasing order of their acid strength.

A. CH_3COOH
B. CH_3CH_2COOH
C. $C_6H_5CH_2COOH$
D. C_6H_5COOH

Choose the correct answer from the options given below:

1. A > B > D > C

2. A > B > C > D

3. D > C > A > B

4. C > D > B > A

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866462**
Option 1 ID : **63238625845**
Option 2 ID : **63238625846**
Option 3 ID : **63238625847**
Option 4 ID : **63238625848**
Status : **Answered**
Chosen Option : **3**

Q.31

Samples of benzaldehyde and acetaldehyde can be distinguished by using

1. 2,4 Dinitrophenylhydrazine

2. Tollen's reagent

3. Mixture of Fehling solution A + B

4. Zn-Hg/HCl

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866445**
Option 1 ID : **63238625777**
Option 2 ID : **63238625778**
Option 3 ID : **63238625779**
Option 4 ID : **63238625780**
Status : **Answered**
Chosen Option : **2**

Q.32

The purest form of commercial iron is

1. Cast Iron
2. Wrought Iron
3. Pig Iron
4. Steel

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866470**
Option 1 ID : **63238625877**
Option 2 ID : **63238625878**
Option 3 ID : **63238625879**
Option 4 ID : **63238625880**
Status : **Answered**
Chosen Option : **1**

Q.33

Following is a property of p-type semiconductor

1. Each atom forms four covalent bonds.
2. Fifth electron is extra and becomes delocalised.
3. The place where the 4^{th} valence electron is missing is called hole.
4. Increase in conductivity is due to negatively charged electron.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866453**
Option 1 ID : **63238625809**
Option 2 ID : **63238625810**
Option 3 ID : **63238625811**
Option 4 ID : **63238625812**
Status : **Answered**
Chosen Option : **4**

Q.34

Amalgam of mercury with sodium belongs to which solute-solvent combination

1. Solid-Gas
2. Solid-Solid
3. Gas-Solid
4. Liquid-Solid

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866455**
Option 1 ID : **63238625817**
Option 2 ID : **63238625818**
Option 3 ID : **63238625819**
Option 4 ID : **63238625820**
Status : **Answered**
Chosen Option : **2**

Q.35

Complete hydrolysis of DNA does not yield

1. Phosphoric acid
2. Pentose sugar
3. Nitrogen containing compound
4. Secondary alcohol

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866450**
Option 1 ID : **63238625797**
Option 2 ID : **63238625798**
Option 3 ID : **63238625799**
Option 4 ID : **63238625800**
Status : **Answered**
Chosen Option : **3**

Q.36 Given below are the steps involved in the process of zone refining for removing impurities which are more soluble in the melt than solid state of the metal.

A. Impurities get concentrated at one end.
B. As the heater moves forward, the pure metal crystallises out of the melt left behind and the impurities pass to the next zone.
C. A mobile heater surrounding the rod of impure metal is fixed at its one end.
D. The end is cut off.
E. The molten zone moves along with the heater which is moved forward.

Choose the correct answer from the options given below:

1. E, B, C, D, A

2. E, B, C, A, D

3. C, E, B, A, D

4. C, B, E, A, D

Options 1. 1

2. 2

3. 3

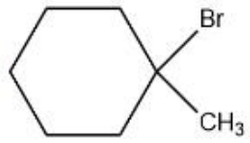
4. 4

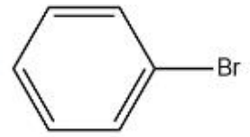
Question Type : **MCQ**
Question ID : **6323866449**
Option 1 ID : **63238625793**
Option 2 ID : **63238625794**
Option 3 ID : **63238625795**
Option 4 ID : **63238625796**
Status : **Answered**
Chosen Option : **1**

Q.37

$$H_3C-CH_2-CH_2-CH_2-CH=CH_2 \xrightarrow{HBr} A$$

A will be

1. $H_3C-CH_2-CH_2-CH_2-CH_2-CH_2Br$
2. $H_3C-CH_2-CH_2-CH_2-CHBr-CH_3$
3. 

4. 

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866437**
Option 1 ID : **63238625745**
Option 2 ID : **63238625746**
Option 3 ID : **63238625747**
Option 4 ID : **63238625748**
Status : **Answered**
Chosen Option : **4**

Q.38

An element 'Y' has a body centred cubic (bcc) structure with a cell edge of 144 pm. The density of the element is 3.6 g/cm^3. How many atoms are present in 720 g of the element?

1. 14.24×10^{23} atoms
2. 10.42×10^{25} atoms
3. 24.16×10^{23} atoms
4. 13.42×10^{25} atoms

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866451**
Option 1 ID : **63238625801**
Option 2 ID : **63238625802**
Option 3 ID : **63238625803**
Option 4 ID : **63238625804**
Status : **Answered**
Chosen Option : **2**

Q.39

Which of the following have lowest value of pK_b in their aqueous solution ?

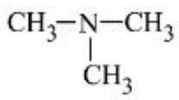
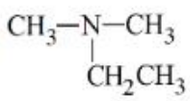
1. $(CH_3)_2NH$
2. $(CH_3)_3N$
3. CH_3NH_2
4. NH_3

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866433**
Option 1 ID : **63238625729**
Option 2 ID : **63238625730**
Option 3 ID : **63238625731**
Option 4 ID : **63238625732**
Status : **Answered**
Chosen Option : **3**

Q.40

The correct structure representing N,N-dimethylethanamine is

1. 
2. $CH_3CH_2—NH—CH_2CH_3$
3. 
4. $CH_3—CH_2—CH_2—CH_2—NH_2$

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866459**
Option 1 ID : **63238625833**
Option 2 ID : **63238625834**
Option 3 ID : **63238625835**
Option 4 ID : **63238625836**
Status : **Answered**
Chosen Option : **1**

Q.41

Answer the question on the basis of passage given below :

Adsorption is the phenomenon of attracting and retaining the molecules of a substance on the surface of a solid resulting into a higher concentration on the surface than in the bulk. The substance adsorbed is known as adsorbate and the substance on which adsorption takes place is called adsorbent. In physisorption adsorbate is held to the adsorbent by weak van der Waals forces and in chemisorption by strong chemical bond.

Out of Milk, butter, ice cream, fruit juice and lemonade. Identify the one which is not a colloid.

1. Milk
2. Lemonade
3. Fruit Juice
4. Butter

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866471**
Option 1 ID : **63238625881**
Option 2 ID : **63238625882**
Option 3 ID : **63238625883**
Option 4 ID : **63238625884**
Status : **Not Answered**
Chosen Option : **--**

Q.42

Answer the question on the basis of passage given below :

Adsorption is the phenomenon of attracting and retaining the molecules of a substance on the surface of a solid resulting into a higher concentration on the surface than in the bulk. The substance adsorbed is known as adsorbate and the substance on which adsorption takes place is called adsorbent. In physisorption adsorbate is held to the adsorbent by weak van der Waals forces and in chemisorption by strong chemical bond.

Argyrol is a medicine used for

1. Curing Kalaazar
2. Stomach disorders
3. Eye Lotion
4. Intramuscular injection

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866472**
Option 1 ID : **63238625885**
Option 2 ID : **63238625886**
Option 3 ID : **63238625887**
Option 4 ID : **63238625888**
Status : **Not Answered**
Chosen Option : **--**

Q.43

Answer the question on the basis of passage given below :

Adsorption is the phenomenon of attracting and retaining the molecules of a substance on the surface of a solid resulting into a higher concentration on the surface than in the bulk. The substance adsorbed is known as adsorbate and the substance on which adsorption takes place is called adsorbent. In physisorption adsorbate is held to the adsorbent by weak van der Waals forces and in chemisorption by strong chemical bond.

The process of absorption is accompanied by

1. Increase in entropy
2. Decrease in entropy
3. Increase in enthalpy
4. Increase in Gibbs free energy

Options
1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866473**
Option 1 ID : **63238625889**
Option 2 ID : **63238625890**
Option 3 ID : **63238625891**
Option 4 ID : **63238625892**
Status : **Not Answered**
Chosen Option : **--**

Q.44

Answer the question on the basis of passage given below :

Adsorption is the phenomenon of attracting and retaining the molecules of a substance on the surface of a solid resulting into a higher concentration on the surface than in the bulk. The substance adsorbed is known as adsorbate and the substance on which adsorption takes place is called adsorbent. In physisorption adsorbate is held to the adsorbent by weak van der Waals forces and in chemisorption by strong chemical bond.

In coagulation of a positive sol, the flocculating power will be in the order

A. PO_4^{3-}

B. Cl^-

C. $Fe(CN_6)]^{4-}$

D. SO_4^{2-}

Choose the correct answer from the options given below:

1. C > A > D > B

2. C > A > B > D

3. C > D > B > A

4. B > D > A > C

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **6323866474**
Option 1 ID : **63238625893**
Option 2 ID : **63238625894**
Option 3 ID : **63238625895**
Option 4 ID : **63238625896**
Status : **Not Answered**
Chosen Option : **--**

Q.45 **Answer the question on the basis of passage given below :**

Adsorption is the phenomenon of attracting and retaining the molecules of a substance on the surface of a solid resulting into a higher concentration on the surface than in the bulk. The substance adsorbed is known as adsorbate and the substance on which adsorption takes place is called adsorbent. In physisorption adsorbate is held to the adsorbent by weak van der Waals forces and in chemisorption by strong chemical bond.

In the given reaction, catalyst used is

$2H_2(g) + O_2(g) \longrightarrow 2H_2O(l)$

1. Cu
2. Ni
3. Pt
4. Pd

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866475**
Option 1 ID : **63238625897**
Option 2 ID : **63238625898**
Option 3 ID : **63238625899**
Option 4 ID : **63238625900**
Status : **Not Answered**
Chosen Option : **--**

Q.46

Answer the question on the basis of passage given below :

One of the notable features of the transition element is the great variety of oxidation states it may show in its compounds. The elements which give the greatest number of oxidation states occur in or near the middle of the series. Manganese, for example exhibits all the oxidation states from +2 to +7. The lesser number of oxidation states at the extreme ends is either due to losing or sharing of few electrons (Sc, Ti) or too many d electrons of higher valence. Early in the first series scandium (II) is virtually unknown and titanium (IV) which is more stable than Ti (III) or Ti (II). On the other end, the only oxidation state of zinc is +2.

Oxidation state of scandium is

1. +1
2. +2
3. +3
4. +4

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866476**
Option 1 ID : **63238625901**
Option 2 ID : **63238625902**
Option 3 ID : **63238625903**
Option 4 ID : **63238625904**
Status : **Not Answered**
Chosen Option : **--**

Q.47

Answer the question on the basis of passage given below :

One of the notable features of the transition element is the great variety of oxidation states it may show in its compounds. The elements which give the greatest number of oxidation states occur in or near the middle of the series. Manganese, for example exhibits all the oxidation states from +2 to +7. The lesser number of oxidation states at the extreme ends is either due to losing or sharing of few electrons (Sc, Ti) or too many d electrons of higher valence. Early in the first series scandium (II) is virtually unknown and titanium (IV) which is more stable than Ti (III) or Ti (II). On the other end, the only oxidation state of zinc is +2.

Fe shows extra stability as Fe^{3+} due to

1. d^{10}
2. d^5
3. s^0
4. s^2

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866477**
Option 1 ID : **63238625905**
Option 2 ID : **63238625906**
Option 3 ID : **63238625907**
Option 4 ID : **63238625908**
Status : **Not Answered**
Chosen Option : **--**

Q.48

Answer the question on the basis of passage given below :

One of the notable features of the transition element is the great variety of oxidation states it may show in its compounds. The elements which give the greatest number of oxidation states occur in or near the middle of the series. Manganese, for example exhibits all the oxidation states from +2 to +7. The lesser number of oxidation states at the extreme ends is either due to losing or sharing of few electrons (Sc, Ti) or too many d electrons of higher valence. Early in the first series scandium (II) is virtually unknown and titanium (IV) which is more stable than Ti (III) or Ti (II). On the other end, the only oxidation state of zinc is +2.

For balancing the given reaction, value of x will be.

$$4\ FeCr_2O_4 + \underline{x}\ Na_2CO_3 + 7O_2 \longrightarrow \underline{x}\ Na_2CrO_4 + 2Fe_2O_3 + 8CO_2$$

1. 2
2. 4
3. 8
4. 7

Options

1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866478**
Option 1 ID : **63238625909**
Option 2 ID : **63238625910**
Option 3 ID : **63238625911**
Option 4 ID : **63238625912**
Status : **Not Answered**
Chosen Option : **--**

Q.49

Answer the question on the basis of passage given below :

One of the notable features of the transition element is the great variety of oxidation states it may show in its compounds. The elements which give the greatest number of oxidation states occur in or near the middle of the series. Manganese, for example exhibits all the oxidation states from +2 to +7. The lesser number of oxidation states at the extreme ends is either due to losing or sharing of few electrons (Sc, Ti) or too many d electrons of higher valence. Early in the first series scandium (II) is virtually unknown and titanium (IV) which is more stable than Ti (III) or Ti (II). On the other end, the only oxidation state of zinc is +2.

Cr^{2+} is reducing but Mn^{3+} is oxidising in nature although both have d^4 configuration. It is due to the reason that Cr configuration changes from

1. d^4 to d^3
2. d^4 to d^5
3. d^2 to d^3
4. d^9 to d^{10}

Options

1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866479**
Option 1 ID : **63238625913**
Option 2 ID : **63238625914**
Option 3 ID : **63238625915**
Option 4 ID : **63238625916**
Status : **Not Answered**
Chosen Option : **--**

Q.50

Answer the question on the basis of passage given below :

One of the notable features of the transition element is the great variety of oxidation states it may show in its compounds. The elements which give the greatest number of oxidation states occur in or near the middle of the series. Manganese, for example exhibits all the oxidation states from +2 to +7. The lesser number of oxidation states at the extreme ends is either due to losing or sharing of few electrons (Sc, Ti) or too many d electrons of higher valence. Early in the first series scandium (II) is virtually unknown and titanium (IV) which is more stable than Ti (III) or Ti (II). On the other end, the only oxidation state of zinc is +2.

Ambidentate ligand among the following is

A. NCS
B. $C_2O_4^{-2}$
C. SCN
D. $H_2NCH_2CH_2NH_2$
E. NO_2

Choose the correct answer from the options given below:

1. A, C and E only
2. A, B and C only
3. B, C and D only
4. A, C and D only

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **6323866480**
Option 1 ID : **63238625917**
Option 2 ID : **63238625918**
Option 3 ID : **63238625919**
Option 4 ID : **63238625920**
Status : **Not Answered**
Chosen Option : **--**