



Bhavamanyu

Chemistry Mock Test Result

Result	Marks	Percentage	Result Date
Fail	19	32%	13-04-2023

:- Result Stats

Score	19	Accuracy %	33
Avg Time Per Question	17 Sec	Total Question	60
Total Question Attempted	59	Total Question Answered	59
Correct Answered	19	Total Time of Test	1:10 Hr
Time Spend	16:43 Min	Avg Time On Question	17 Sec
Non Productive Time	-	Benchmark	80

:- Recommendation

Aww! bhavamanyu you have not pass the exam . Keep your heads up and focus on below points :

- Try to complete the test , you left 1 question
- Your question attempt speed is optimal

Q.No. 1

H₂O₂ is

- (A) An oxidising agent
- (B) A reducing agent
- (C) Both oxidising and reducing agent
- (D) Neither oxidising nor reducing agent

Status : Correct Answered

Correct Answer : (C)

Q.No. 2

Which of the following is NOT true regarding the usage of hydrogen as a fuel?

- (A) High calorific value
- (B) The combustible energy of hydrogen can be directly converted to electrical energy in a fuel cell
- (C) Combustion product is ecofriendly.
- (D) Hydrogen gas can be easily liquefied and stored.

Status : Wrong Answered

Correct Answer : (D)

Q.No. 3

Solution 'A' contains acetone dissolved in chloroform and solution 'B' contains acetone dissolved in carbon disulphide. The type of deviations from Raoult's law shown by solutions A and B, respectively are

- (A) positive and positive
- (B) positive and negative
- (C) negative and negative
- (D) negative and positive

Status : Correct Answered

Correct Answer : (D)

Q.No. 4

Which of the following crystal has unit cell such that $a \neq b \neq c$ and $\alpha \neq \beta \neq \gamma \neq 90^\circ$?

- (A) K₂Cr₂O₇
- (B) NaNO₃
- (C) KNO₃
- (D) K₂SO₄

Status : Correct Answered

Correct Answer : (A)

Q.No. 5

Which of the following electrolytes will have maximum coagulating value for AgI/Ag⁺ sol ?

- (A) Na₂S
- (B) Na₃PO₄
- (C) Na₂SO₄
- (D) NaCl

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 6

When the pure solvent diffuses out of the solution through the semi-permeable membrane then the process is called

- (A) Osmosis
- (B) Reverse osmosis
- (C) Sorption
- (D) Dialysis

Status : **Wrong Answered**

Correct Answer : **(B)**

Q.No. 7

Plaster of Paris is represented as

- (A) CaSO₄ · $\frac{1}{2}$ H₂O
- (B) CaSO₄ · H₂O
- (C) CaSO₄ · 2H₂O
- (D) CaSO₄

Status : **Correct Answered**

Correct Answer : **(A)**

Q.No. 8

The TUPAC name of
[Co(NH₃)₄Cl(NO₂)]Cl is

- (A) tetraamminechloridonitrito-N- cobalt(III) chloride
- (B) tetraamminechloridonitrocobalt(I) chloride
- (C) tetraamminechloridonitrocobalt(I) chloride
- (D) tetraamminechloridodinitrocobalt(III) chloride

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 9

Very pure NO_2 can be obtained by

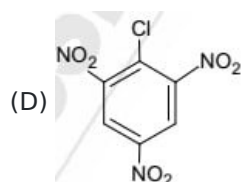
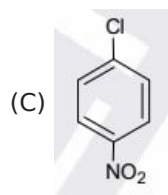
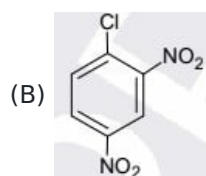
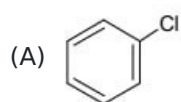
- (A) Thermal decomposition of ammonium dichromate
- (B) Treating aqueous solution of NH_4Cl and NaNO_2
- (C) Liquefaction and fractional distillation of liquid air
- (D) Thermal decomposition of sodium azide

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 10

Which of the following halides undergoes hydrolysis on warming with water/aqueous NaOH ?



Status : **Correct Answered**

Correct Answer : **(C)**

Q.No. 11

The electronegativities of C, N, Si and P are in the order of

- (A) $\text{P} < \text{Si} < \text{C} < \text{N}$
- (B) $\text{Si} < \text{P} < \text{N} < \text{C}$
- (C) $\text{Si} < \text{P} < \text{C} < \text{N}$
- (D) $\text{P} < \text{Si} < \text{N} < \text{C}$

Status : **Wrong Answered**

Correct Answer : **(C)**

Q.No. 12

For an ideal gas, compressibility factor is

- (A) 0
- (B) 1
- (C) -1
- (D) +2

Status : **Wrong Answered**

Correct Answer : **(B)**

Q.No. 13

Select wrong chemical reaction among the following :

- (A) $\text{MnO}_2 + 4\text{HCl} \longrightarrow \text{MnCl}_2 + \text{Cl}_2 + 2\text{H}_2\text{O}$
- (B) $8\text{NH}_3 + 3\text{Cl}_2 \longrightarrow 6\text{NH}_4\text{Cl} + \text{N}_2$
- (C) $2\text{NaOH} + \text{Cl}_2 \longrightarrow 2\text{NaCl} + \text{H}_2 + \text{O}_2$
- (D) $2\text{Ca}(\text{OH})_2 + 2\text{Cl}_2 \longrightarrow \text{Ca}(\text{OCl})_2 + \text{CaCl}_2 + 2\text{H}_2\text{O}$

Status : **Correct Answered**

Correct Answer : **(C)**

Q.No. 14

The formula of penta aquanitrato chromium (III) nitrate is,

- (A) $[\text{Cr}(\text{H}_2\text{O})_6(\text{NO}_3)_3]$
- (B) $[\text{Cr}(\text{H}_2\text{O})_6(\text{NO}_2)_2]$
- (C) $[\text{Cr}(\text{H}_2\text{O})_5\text{NO}_3](\text{NO}_3)_2$
- (D) $[\text{Cr}(\text{H}_2\text{O})_5\text{NO}_2]\text{NO}_3$

Status : **Wrong Answered**

Correct Answer : **(C)**

Q.No. 15

The Glycosidic linkage present in sucrose is between

- (A) C – 1 of α -glucose and C – 2 of β -fructose
- (B) C – 1 of α -glucose and C – 4 of α -glucose
- (C) C – 1 of β -galactose and C – 4 of α glucose
- (D) C – 1 of α -glucose and C – 4 of β -fructose

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 16

Pick the wrong statement from the following :

- (A) Sources of Vitamin B_1 are yeast, milk, green vegetables and cereals
- (B) Deficiency of Vitamin B_6 (pyridoxime) results in convulsions
- (C) Consumption of citrus fruits and green leafy vegetables in food prevents scurvy
- (D) Deficiency of vitamin D causes xerophthalmia

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 17

$KMnO_4$ acts as an oxidising agent in alkaline medium. When alkaline $KMnO_4$ is treated with KI, iodide ion is oxidised to

- (A) I_2
- (B) IO^-
- (C) IO_3^-
- (D) IO_4^-

Status : **Wrong Answered**

Correct Answer : **(C)**

Q.No. 18

One litre solution of $MgCl_2$ is electrolyzed completely by passing a current of 1A for 16 min 5 sec. The original concentration of $MgCl_2$ solution was

(Atomic mass of Mg = 24)

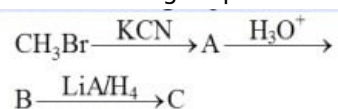
- (A) $5 \times 10^{-3}M$
- (B) $5 \times 10^{-2}M$
- (C) $0.5 \times 10^{-3}M$
- (D) $1.0 \times 10^{-2} M$

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 19

In the following sequence of reactions



The end product C is

- (A) Acetone
- (B) Methane
- (C) Acetaldehyde
- (D) Ethyl Alcohol

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 20

Which of the following is an amphoteric oxide ?

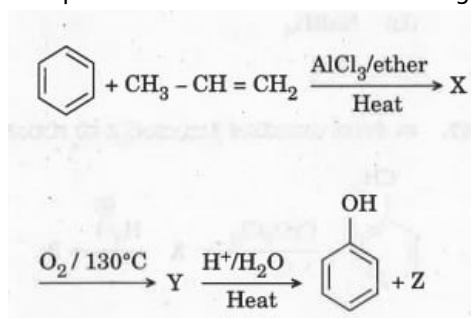
- (A) V_2O_5 , Cr_2O_3
 (B) Mn_2O_7 , Cr_2O_3
 (C) CrO , V_2O_5
 (D) V_2O_5 , V_2O_4

Status : **Correct Answered**

Correct Answer : **(A)**

Q.No. 21

The products X and Z in the following reaction sequence are



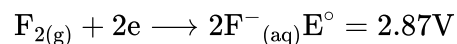
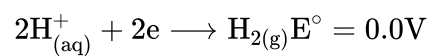
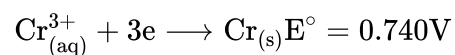
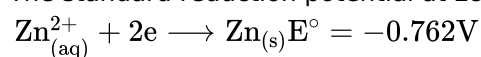
- (A) Isopropylbenzene and acetone
 (B) Cumene peroxide and acetone
 (C) Isopropylbenzene and isopropyl alcohol
 (D) Phenol and acetone

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 22

The standard reduction potential at 298 K for the following half cell reaction



Which of the following is strongest reducing agent ?

- (A) $Zn_{(s)}$
 (B) $Cr_{(s)}$
 (C) $H_{2(g)}$
 (D) $F_{2(g)}$

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 23

The intramolecular hydrogen bond is present

- (A) Phenol
- (B) o-Nitrophenol
- (C) p-Nitrophenol
- (D) p-Cresol

Status : **Correct Answered**

Correct Answer : **(B)**

Q.No. 24

Which of the following is more basic than aniline ?

- (A) Diphenylamine
- (B) Triphenylamine
- (C) p-nitroaniline
- (D) Benzylamine

Status : **Correct Answered**

Correct Answer : **(D)**

Q.No. 25

For a cell reaction involving two electron changes, $E_{\text{cell}} = 0.3 \text{ V}$ at 25°C . The equilibrium constant of the reaction is

- (A) 10^{-10}
- (B) 3×10^{-2}
- (C) 10
- (D) 10^{10}

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 26

The mass of AgCl precipitated when a solution containing 11.70 g of NaCl is added to a solution containing 3.4g of AgNO₃ is

[Atomic mass of Ag = 108, Atomic mass of Na = 23]

- (A) 5.74 g
- (B) 1.17 g
- (C) 2.87 g
- (D) 6.8 g

Status : **Wrong Answered**

Correct Answer : **(C)**

Q.No. 27

The common impurity present in bauxite is

- (A) CuO
- (B) ZnO
- (C) Fe₂O₃
- (D) Cr₂O₃

Status : **Correct Answered**

Correct Answer : **(C)**

Q.No. 28

During the fusion of organic compound with sodium metal, nitrogen present in the organic compound is converted into

- (A) NaNO₂
- (B) NaNH₂
- (C) NaCN
- (D) NaNC

Status : **Correct Answered**

Correct Answer : **(C)**

Q.No. 29

Which cleansing agent gets precipitated in hard water?

- (A) Sodium lauryl sulphate
- (B) Sodium stearate
- (C) Cetyl trimethyl ammonium bromide
- (D) Sodium dodecyl benzene sulphonate

Status : **Wrong Answered**

Correct Answer : **(B)**

Q.No. 30

The Vant Hoff's factor 'i' accounts for

- (A) extent of solubility of solute
- (B) extent of dissociation of solute
- (C) extent of dissolution of solute
- (D) extent of mobility of solute

Status : **Correct Answered**

Correct Answer : **(B)**

Q.No. 31

In the electrolysis of aqueous sodium chloride solution, which of the half cell reaction will occur at anode ?

- (A) $\text{Na}_{(\text{aq})}^{+} + \text{e}^{-} \longrightarrow \text{Na}_{(\text{s})}$
 $E^{\circ} = -2.71\text{volts}$
- (B) $2\text{H}_2\text{O}_{(\text{l})} \longrightarrow \text{O}_2 + 4\text{H}^{+} + 4\text{e}^{-}$
 $E^{\circ}_{\text{cell}} = 1.23\text{volts}$
- (C) $\text{H}_{(\text{aq})}^{+} + \text{e}^{-} \longrightarrow \frac{1}{2}\text{H}_2$
 $E^{\circ}_{\text{cell}} = 0.00\text{volts}$
- (D) $\text{Cl}_{(\text{aq})}^{-} \longrightarrow \frac{1}{2}\text{Cl}_2 + \text{e}^{-}$
 $E^{\circ}_{\text{cell}} = 1.36\text{volts}$

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 32

Which of the following statement is wrong regarding Lanthanoids?

- (A) Ln(III) compounds are generally colourless.
- (B) Ln(III) compounds are predominantly ionic in character.
- (C) The ionic size of Ln(III) ions decreases with increasing atomic number.
- (D) Ln(III) hydroxides are mainly basic in nature.

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 33

In the manufacture of hydrogen from water gas ($\text{CO} + \text{H}_2$), which of the following is correct statement ?

- (A) CO is oxidized to CO_2 with steam in the presence of a catalyst followed by absorption of in alkali.
- (B) CO and H_2 are separated based on difference in their densities.
- (C) Hydrogen is isolated by diffusion.
- (D) H_2 is removed by occlusion with pd.

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 34

Which is a wrong statement?

- (A) Rate constant $k = \text{Arrhenius constant } A : \text{ if } E_a = 0$
- (B) $e^{-E_a/RT}$ gives the fraction of reactant molecules that are activated at the given temp
- (C) In k vs $1/T$ plot is a straight line
- (D) presence of catalyst will not alter the value of E_a

Status : **Correct Answered**

Correct Answer : **(D)**

Q.No. 35

The correct order of increasing basic nature for the bases, NH_3 , CH_3NH_2 and $(\text{CH}_3)_2\text{NH}$ and in aqueous solutions

- (A) $\text{CH}_3\text{NH}_2 < \text{NH}_3 < (\text{CH}_3)_2\text{NH}$
- (B) $\text{NH}_3 < \text{CH}_3\text{NH}_2 < (\text{CH}_3)_2\text{NH}$
- (C) $(\text{CH}_3)_2\text{NH} < \text{NH}_3 < \text{CH}_3\text{NH}_2$
- (D) $\text{CH}_3\text{NH}_2 < (\text{CH}_3)_2\text{NH} < \text{NH}_3$

Status : **Wrong Answered**

Correct Answer : **(C)**

Q.No. 36

Hydrogenation of vegetable oils in presence of finely divided Nickel as catalyst. The reaction is

- (A) Heterogeneous catalysis
- (B) Homogeneous catalysis
- (C) Enzyme catalysed reaction
- (D) Liquid catalysed reaction

Status : **Correct Answered**

Correct Answer : **(A)**

Q.No. 37

Which of the following is the correct order of radius ?

- (A) $\text{H}^- > \text{H} > \text{H}^+$
- (B) $\text{Na}^+ > \text{F}^- > \text{O}^{2-}$
- (C) $\text{F}^- > \text{O}^{2-} > \text{Na}^+$
- (D) $\text{Al}^{3+} > \text{Mg}^{2+} > \text{N}^{3-}$

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 38

Electrolytic refining is used to purify which of the following metals ?

- (A) Cu and Zn
- (B) Ge and Si
- (C) Zr and Ti
- (D) Zn and Hg

Status : **Correct Answered**

Correct Answer : **(A)**

Q.No. 39

The number of atoms in 2.4 g of body centred cubic crystal with edge length 200 pm is (density = 10 g cm^{-3} , $N_A = 6 \times 10^{23}$ atoms/mol)

- (A) 6×10^{22}
- (B) 6×10^{20}
- (C) 6×10^{23}
- (D) 6×10^{19}

Status : **Correct Answered**

Correct Answer : **(A)**

Q.No. 40

Bactericidal antibiotics among the following is

- (A) Ofloxacin
- (B) Erythromycin
- (C) Tetracycline
- (D) Chloramphenicol

Status : **Correct Answered**

Correct Answer : **(A)**

Q.No. 41

Which of the following order is true regarding the acidic nature of phenol ?

- (A) Phenol > O-cresol > O-nitrophenol
- (B) O-cresol < phenol < O-nitrophenol
- (C) phenol < O-cresol > O-nitrophenol
- (D) phenol < O-cresol < O-nitrophenol

Status : **Wrong Answered**

Correct Answer : **(B)**

Q.No. 42

Gabriel phthalimide synthesis is used in the preparation of primary amine from phthalimide, which of the following reagent is not used during the process?

- (A) KOH
- (B) NaOH
- (C) HCl
- (D) Alkyl Halides

Status : **Wrong Answered**

Correct Answer : **(C)**

Q.No. 43


Identify the following compound which exhibits geometrical isomerism :









- (A) But-2-ene
- (B) But-1-ene
- (C) Butane
- (D) Isobutane

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 44

The alkyl halides required to prepare  by Wurtz reaction are

- (A)  Cl and 
- (B)  and 
- (C)  and  (D)
- (D)  Cl and 

Status : **Wrong Answered**

Correct Answer : **(C)**

Q.No. 45

$3\text{ClO}^-_{(\text{aq})} \rightarrow \text{ClO}^- + 2\text{Cl}^-$ is an example of

- (A) Oxidation reaction
- (B) Reduction reaction
- (C) Disproportionation reaction
- (D) Decomposition reaction

Status : **Wrong Answered**

Correct Answer : **(B)**

Q.No. 46

The orbital nearest to the nucleus is

- (A) 4f
- (B) 5d
- (C) 4s
- (D) 7p

Status : **Correct Answered**

Correct Answer : **(C)**

Q.No. 47

Which of the following aqueous solution has highest freezing point ?

- (A) 0.1 molal $\text{Al}_2(\text{SO}_4)_3$
- (B) 0.1 molal BaCl_2
- (C) 0.1 molal AlCl_3
- (D) 0.1 molal NH_4Cl

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 48

Tertiary alkyl halide is practically inert to substitution by $\text{S}_{\text{N}}2$ mechanism because of

- (A) Insolubility
- (B) Instability
- (C) Inductive effect
- (D) Steric hindrance

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 49

Which of the following statements is true in case of alkyl halides ?

- (A) They are polar in nature
- (B) They can form hydrogen bonds
- (C) They are highly soluble in water
- (D) They undergo addition reactions

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 50

Among the following, the branched chain polymer is

- (A) Polyvinyl chloride
- (B) Bakelite
- (C) Low density polythene
- (D) High density polythene

Status : **Wrong Answered**

Correct Answer : **(C)**

Q.No. 51

Which of the following statements is correct?

- (A) Cl_2 oxidises H_2O to O_2 but F_2 does not.
- (B) Cl_2 is a stronger oxidizing agent than F_2 .
- (C) F_2 oxidises H_2O to O_2 but Cl_2 does not
- (D) Fluoride is a good oxidising agent.

Status : **Wrong Answered**

Correct Answer : **(C)**

Q.No. 52

Dead burnt plaster is

- (A) CaSO_4
- (B) $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$
- (C) $\text{CaSO}_4 \cdot \text{H}_2\text{O}$
- (D) $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$

Status : **Wrong Answered**

Correct Answer : **(A)**

Q.No. 53

Oxidation state of copper is +1 in

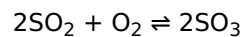
- (A) Malschite
- (B) Cuprite
- (C) Azurite
- (D) Chalcopyrite

Status : **Wrong Answered**

Correct Answer : **(B)**

Q.No. 54

For the reaction,



the rate of disappearance of O_2 is $2 \times 10^{-4} \text{ mol L}^{-1} \text{ s}^{-1}$. The rate of appearance of SO_3 is

- (A) $2 \times 10^{-4} \text{ mol L}^{-1}$
- (B) $4 \times 10^{-4} \text{ mol L}^{-1}$
- (C) $1 \times 10^{-1} \text{ mol L}^{-1}$
- (D) $6 \times 10^{-4} \text{ mol L}^{-1}$

Status : **Wrong Answered**

Correct Answer : **(B)**

Q.No. 55

The metal nitrate that liberates NO_2 on heating

- (A) NaNO_3
- (B) LiNO_3
- (C) KNO_3
- (D) RbNO_3

Status : **Correct Answered**

Correct Answer : **(B)**

Q.No. 56

Which of the following is not a biodegradable polymer ?

- (A) Polyhydroxy butyrate – $\text{CO} - \beta$ hydroxy valerate
- (B) pHBV
- (C) Nylon 2-Nylon-6
- (D) Glyptol

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 57

The glycosidic linkage involved in linking the glucose units in amylose part of starch is

- (A) $\text{C}_1 - \text{C}_4$ β -linkage
- (B) $\text{C}_1 - \text{C}_6$ α -linkage
- (C) $\text{C}_1 - \text{C}_6$ β -linkage
- (D) $\text{C}_1 - \text{C}_4$ α -linkage

Status : **Wrong Answered**

Correct Answer : **(D)**

Q.No. 58

When PbO_2 reacts with concentrated HNO_3 , the gas evolved is

- (A) NO_2
- (B) O_2
- (C) N_2
- (D) N_2O

Status : **Wrong Answered**

Correct Answer : **(B)**

Q.No. 59

Which of the following can be used to test the acidic nature of ethanol?

- (A) Blue litmus
- (B) Na_2CO_3
- (C) NaHCO_3
- (D) Na metal

Status : Wrong Answered

Correct Answer : (D)

Q.No. 60

Which of the following pairs contains 2 long pairs of electrons on the central atom?

- (A) I_3 , H_2O
- (B) H_2O , NF_3
- (C) XeF_4 , NH_3
- (D) SO_4^{2-} , H_2S

Status : Not Answered

Correct Answer : (A)
