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Chehak Mehta

Chemistry Mock Test Result

Result	Marks	Percentage	Result Date
Fail	32	40%	09-04-2023

:- Result Stats

Score	32	**Accuracy %**	56
Avg Time Per Question	30 Sec	**Total Question**	25
Total Question Attempted	25	**Total Question Answered**	18
Correct Answered	10	**Total Time of Test**	1:0 Hr
Time Spend	12:32 Min	**Avg Time On Question**	30 Sec
Non Productive Time	2:45 Min	**Benchmark**	80

:- Subject Wise Stats

CHEMISTRY

Total Question	25	**Total Question Attempted**	25
Total Question Answered	18	**Correct Answered**	10
Wrong Answered	8	**Skipped Question**	7
Total Time Spend	12:32 Min	**Average Time Spend(per question)**	30 Sec
Correct Answered Time	5:48 Min	**Wrong Answered Time**	3:59 Min
Skipped Question Time	2:45 Min	-	-

:- Recommendation

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

- Your question attempt speed is optimal

:- Solutions

Q.No. 1

Which of the following represents the correct order of increasing first ionization enthalpy for Ca, Ba, S, Se and Ar?

(A) S < Se < Ca < Ba < Ar

(B) Ba < Ca < Se < S < Ar

(C) Ca < Ba < S < Se < Ar

(D) Ca < S < Ba < Se < Ar

Status : Correct Answered **Correct Answer :** (B)

Q.No. 2

Four successive members of the first row transition elements are listed below with atomic numbers. Which one of them is expected to have the highest $E^0_{M^{3+}/M^{3-}}$ value?

(A) Mn(Z = 25)

(B) Fe(Z = 26)

(C) Co(Z = 27)

(D) Cr(Z = 24)

Status : Wrong Answered **Correct Answer :** (C)

Q.No. 3

The first ionization potential of Na is 5.1 eV. The value of electron gain enthalpy of Na^+ will be:

(A) – 5.1 eV

(B) –10.2 eV

(C) + 2.55 eV

(D) – 2.55 eV

Status : Correct Answered **Correct Answer :** (A)

Q.No. 4

Given

$$\mathrm{E}^0_{\mathrm{Cr}^3+/\mathrm{Cr}} = -0.74\mathrm{V}; \mathrm{E}^0_{\mathrm{MnO}_4^-/\mathrm{Mn}^{2*}} = 1.51\mathrm{V}$$
$$\mathrm{E}^0_{\mathrm{Cr_2O_7^2}/\mathrm{Cr}^{3+}} = 1.33\mathrm{V}; \mathrm{E}^0_{\mathrm{Cl}/\mathrm{C}^-} = 1.36\mathrm{V}$$

Based on the data given above, strongest oxidising agent will be:

(A) Cr_3^+

(B) Mn_2^+

(C) MnO_4^-

(D) Cl^-

Status : Correct Answered **Correct Answer :** (C)

Q.No. 5

For gaseous state, if most probable speed is denoted by C*, average speed by C and mean square speed by C, then for a large number of molecules the ratios of these speeds are:

(A) C*: C : C = 1.128 :1.225 :1

(B) C*: C : C = 1:1.128 :1.225

(C) C*:C:C = 1:1.125 :1.128

(D) C*:C:C = 1.225 :1.128 :1

Status : Not Answered **Correct Answer : (A)**

Q.No. 6

A gaseous hydrocarbon gives upon combustion 0.72 g of water and 3.08 g of CO_2. The empirical formula of the hydrocarbon is :

(A) C_3H_4

(B) C_6H_5

(C) C_7H

(D) C_2H_4

Status : Not Answered **Correct Answer : (C)**

Q.No. 7

A piston filled with 0.04 mol of an ideal gas expands reversibly from 50.0 mL to 375 mL at a constant temperature of 37.0°C. As it does so, it absorbs 208J of heat. The values of q and w for the process will be:
(R = 8.314 J/mol K) (ln 7.5 = 2.01)

(A) q = – 208 J, w = – 208 J

(B) q = – 208 J, w = + 208 J

(C) q = + 208 J, w = + 208 J

(D) q = + 208 J, w = – 208 J

Status : Not Answered **Correct Answer : (D)**

Q.No. 8

Which of the following complex species is not expected to exhibit optical isomerism?

(A) $[Co(en)_2Cl_2]^+$

(B) $[Co(NH_3)_3Cl_3]$

(C) $[Co(en)(NH_3)_2Cl_2]^+$

(D) $[Co(en)_3]^{3+}$

Status : Wrong Answered **Correct Answer : (B)**

Q.No. 9

The coagulating power of electrolytes having ions Na^+, Al^{3+} and Ba^{2+} for arsenic sulphide sol increases in the order

(A) $Na^+ < Ba^{2+} < Al^{3+}$

(B) $Ba^{2+} < Na^+ < Al^{3+}$

(C) $Al^{3+} < Na^+ < Ba^{2+}$

(D) $Al^{3+} < Ba^{2+} < Na^+$

Status : Not Answered **Correct Answer : (A)**

Q.No. 10

A compound with molecular mass 180 is acylated with CH_3COCl to get a compound with molecular mass 390. The number of amino groups present per molecule of the former compound is:

(A) 5

(B) 6

(C) 4

(D) 2

Status : Not Answered **Correct Answer : (A)**

Q.No. 11

Stability of the species Li_2, Li_2^- and Li_2^+ increases in the order of

(A) $Li_2^- < Li_2^+ < Li_2$

(B) $Li_2 < Li_2^- < Li_2^+$

(C) $Li_2^- < Li_2 < Li_2^+$

(D) $Li_2 < Li_2^+ < Li_2^-$

Status : Wrong Answered **Correct Answer : (A)**

Q.No. 12

The rate of a reaction doubles when its temperature changes from 300K to 310K. Activation energy of such a reaction will be:
(R = 8.314 JK^{-1} mol^{-1} and log 2 = 0.301)

(A) 48.6 kJ mol^{-1}

(B) 58.5 kJ mol^{-1}

(C) 60.5 kJ mol^{-1}

(D) 53.6 kJ mol^{-1}

Status : Correct Answered **Correct Answer : (D)**

Q.No. 13

Which of the following is the correct statement?

(A) Starch is polymer of α - glucose

(B) Amylose is component of cellulose

(C) Proteins are composed of only one type of amino acid

(D) In cyclic structure of fructose here are four carbons and one oxygen

Status : Wrong Answered **Correct Answer :** (A)

Q.No. 14

Which one of the following molecules is expected to exhibit diamagnetic behaviour?

(A) N_2^+

(B) O_2

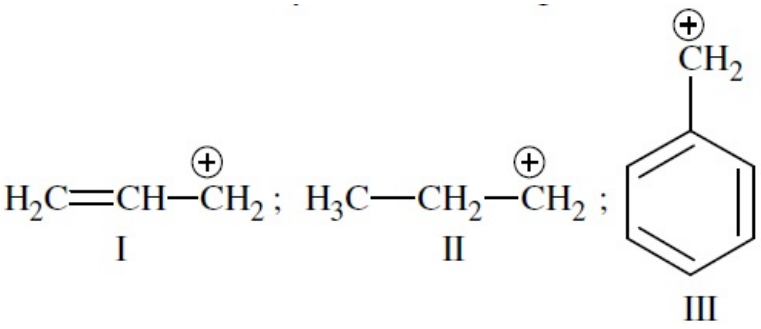
(C) S_2

(D) C_2

Status : Wrong Answered **Correct Answer :** (D)

Q.No. 15

The order of stability of the following carbocations



(A) II > III > I

(B) I > II > III

(C) III > I > II

(D) III > II > I

Status : Correct Answered **Correct Answer :** (C)

Q.No. 16

Which of the following arrangements does not represent the correct order of the property stated against it ?

(A) $Ni^{2+} < Co^{2+} < Fe^{2+} < Mn^{2+}$: ionic size

(B) $Co^{3+} < Fe^{3+} < Cr^{3+} < Sc^{3+}$: stability in aqueous solution

(C) Sc < Ti < Cr < Mn : number of oxidation states

(D) $V^{2+} > Cr^{2+} > Mn^{2+} > Fe^{2+}$: paramagnetic behaviour

Status : Wrong Answered **Correct Answer :** (B)

Q.No. 17

Experimentally it was found that a metal oxide has formula $M_{0.98}O$. Metal M, is present as M^{2+} and M^{3+} in its oxide. Fraction of the metal which exists as M^{3+} would be:

(A) 4.08%

(B) 6.05%

(C) 5.08%

(D) 7.01%

Status : Not Answered **Correct Answer : (D)**

Q.No. 18

Synthesis of each molecule of glucose in photosynthesis involves

(A) 10 molecules of ATP

(B) 8 molecules of ATP

(C) 6 molecules of ATP

(D) 18 molecules of ATP

Status : Correct Answered **Correct Answer : (D)**

Q.No. 19

The molarity of a solution obtained by mixing 750 mL of 0.5 (M) HCl with 250 mL of 2(M)HCl will be

(A) 1.00 M

(B) 1.75 M

(C) 0.975 M

(D) 0.875 M

Status : Correct Answered **Correct Answer : (D)**

Q.No. 20

An unknown alcohol is treated with the “Lucas reagent” to determine whether the alcohol is primary, secondary or tertiary. Which alcohol reacts fastest and by what mechanism:

(A) tertiary alcohol by S_N1

(B) tertiary alcohol by S_N2

(C) secondary alcohol by S_N2

(D) secondary alcohol by S_N1

Status : Correct Answered **Correct Answer : (A)**

Q.No. 21

Consider the following reaction

$$xMnO_4^- + yC_2O_4^{2-} + zH^+ \longrightarrow xMn^{2+} + 2yCO_2 + \frac{z}{2}H_2O$$

The values of x, y and z in the reaction are, respectively:

(A) 2, 5 and 8

(B) 2, 5 and 16

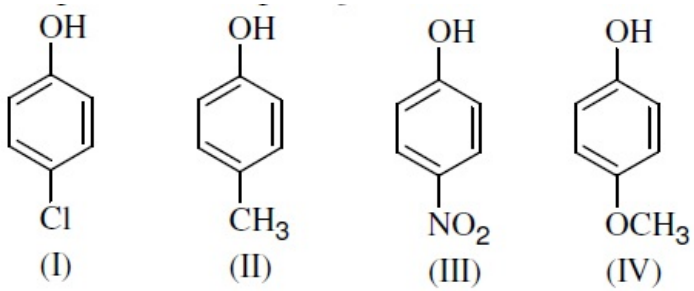
(C) 5, 2 and 8

(D) 5, 2 and 16

Status : Not Answered **Correct Answer : (B)**

Q.No. 22

Arrange the following compounds in order of decreasing acidity:



(A) I > II > III > IV

(B) III > I > II > IV

(C) IV > III > I > II

(D) II > IV > I > III

Status : Correct Answered **Correct Answer : (B)**

Q.No. 23

How many litres of water must be added to 1 litre of an aqueous solution of HCl with a pH of 1 to create an aqueous solution with pH of 2?

(A) 0.9 L

(B) 2.0 L

(C) 9.0 L

(D) 0.1 L

Status : Wrong Answered **Correct Answer : (C)**

Q.No. 24

The gas leaked from a storage tank of the Union Carbide plant in Bhopal gas tragedy was:

(A) Methylamine

(B) Ammonia

(C) Phosgene

(D) Methylisocyanate

Status : **Correct Answered** **Correct Answer :** **(D)**

Q.No. 25

A solution of (+) –1 – chloro –1 – phenylethane is toluene racemises slowly in the presence of a small amount of $SbCl_5$, due to the formation of

(A) carbene

(B) carbocation

(C) free radical

(D) carbanion

Status : **Wrong Answered** **Correct Answer :** **(B)**