



INDIAN SCHOOL MUSCAT

SECOND PERIODIC ASSESSMENT

CHEMISTRY

CLASS: XI

Sub. Code: 043

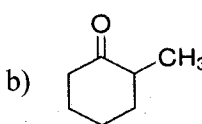
Time Allotted: 50 mts.

08.012020

Max. Marks: 20

GENERAL INSTRUCTIONS:

- All questions are compulsory.
- Mark for each question is indicated against it.

1. The oxidation number of Cr in $K_2Cr_2O_7$ is : 1
a) +3 b) -3 c) +6 d) -6
2. Which of the following carbanion is most stable? 1
a) $(CH_3)_2CH^-$ b) $CH_3CH_2^-$ c) CH_3^- d) $(CH_3)_3C^-$
3. The tendency of an electrode to lose electrons is called _____ 1
4. Two substances having different solubility in a particular solvent can be separated by _____ 1
5. What is meant by stock notation? 1
6. a) Write the structural formula of Pentane-2, 4-dione. 2
b) Correct the following IUPAC name if wrong : 2,4-Diethylpentane
7. A cell is prepared by dipping a chromium rod in 1 M $Cr_2(SO_4)_3$ solution and an iron rod in 1 M $FeSO_4$ solution. Calculate the EMF of the cell at 298K and write the cell representation. 2
Given, $E^0 Cr^{3+}/Cr = -0.75 V$, $E^0 Fe^{2+}/Fe = -0.45 V$
8. Write the IUPAC name of the following. 2
a) $HOOCCH_2CH(OH)CH_2CH_3$
b) 
9. Balance the following redox reaction by ion- electron method in basic medium. 3
 $Cl_2O_7 + H_2O_2 \rightarrow ClO_2^- + O_2$
10. a) Explain Carius method for the estimation of Sulphur in an organic compound. 3
b) Identify the nucleophiles and electrophiles from the following.



11. a) Give a pair of functional isomers of $\text{C}_3\text{H}_6\text{O}_2$.
b) Why electromeric effect is called a temporary effect?
c) Draw the resonating structures of Aniline ($\text{C}_6\text{H}_5\text{NH}_2$).

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End of the Question Paper



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GENERAL INSTRUCTIONS:

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1. Oxidation number of Osmium in OsO_4 is 1
(a) +2 (b) +4 (c) +8 (d) +10
2. Which of the following carbocation is most stable? 1
a) $(\text{CH}_3)_2\text{CH}^+$ b) $(\text{CH}_3)_3\text{C}^+$ c) CH_3CH_2^+ d) CH_3^+
3. An arrangement involving contact between the oxidized and reduced forms of a substance taking part in an oxidation or reduction half reaction is called 1

4. _____ is an example for adsorption chromatography 1
5. Give any two functions of salt bridge? 1
6. a) Write the structural formula of 1-Chloro-2-methylbenzene 2
b) Which of the following represents the correct IUPAC name of the compound:
2-Iodopent-3-ene (or) 4-Iodopent-2-ene
7. Construct the Galvanic cell, write the cell representation and determine the cell voltage using the two half cells, E^0 of $\text{Ca}^{2+}/\text{Ca} = -2.87 \text{ V}$ and E^0 of $\text{Ni}^{2+}/\text{Ni} = -0.25 \text{ V}$. 2
8. Write the IUPAC name of the following. 2
a) $\text{HOCH}_2\text{COCH}_2\text{CH}_2\text{CH}_2\text{CH}_3$
b) $\text{CH}_3\text{OCH}_2\text{CH}_2\text{CH}_2\text{CH}_3$
9. Balance the following redox reaction by ion-electron method in basic medium. 3
 $\text{MnO}_4^- + \text{Br}^- \rightarrow \text{MnO}_2 + \text{BrO}_3^-$
10. a) Identify the nucleophiles and electrophiles from the following. 3
 H_2O , Cl^+ , $(\text{CH}_3)_3\text{N}$, BF_3
b) Explain Carius method for the estimation of chlorine in an organic compound.

11. a) Give a pair of functional isomers of $\text{C}_2\text{H}_6\text{O}$.
 b) Define Inductive effect.
 c) Draw the resonating structures of Chlorobenzene ($\text{C}_6\text{H}_5\text{Cl}$).

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End of the Question Paper



INDIAN SCHOOL MUSCAT SECOND PERIODIC ASSESSMENT

CHEMISTRY

CLASS: XI

Sub. Code: 043

Time Allotted: 50 mts.

08.01.2020

Max. Marks: 20

GENERAL INSTRUCTIONS:

- All questions are compulsory.
- Mark for each question is indicated against it.

1. The oxidation number of aluminium in LiAlH_4 is: 1
(a) +2 (b) +3 (c) +4 (d) +5

2. Which of the following alkene is most stable? 1
a) $\text{CH}_3\text{-CH=CH-CH}_3$ b) $\text{CH}_2\text{=CH-CH}_3$ c) $\text{CH}_2\text{=CH}_2$ d) $\text{CH}_3\text{-C(CH}_3\text{)=CHCH}_3$

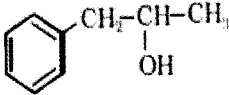
3. The tendency of an electrode to gain electrons is called _____ 1

4. In the process of purification, if the liquid has a tendency to decompose at its boiling point, the process of _____ is employed. 1

5. What is meant by disproportionation reaction? 1

6. a) Write the structural formula of 2, 3 -Dimethylbutanal. 2
b) Which of the following represents the correct IUPAC name of the compound:
But-3-yn-1-ol (or) But-4-ol-1-yne

7. A cell is prepared by dipping an aluminium rod in 1 M $\text{Al}_2(\text{SO}_4)_3$ solution and a copper rod in 1 M CuSO_4 solution. Calculate the EMF of the cell at 298K and write the cell representation, 2
Given , $E^0 \text{Cu}^{2+}/\text{Cu} = +0.34 \text{ V}$, $E^0 \text{Al}^{3+}/\text{Al} = -1.66 \text{ V}$

8. Write the IUPAC name of the following. 2
- a) $\text{HOOCCH}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{Cl}$
- b) 
9. Balance the following redox reaction by ion- electron method in basic medium. 3
- $$\text{Cr}(\text{OH})_3 + \text{IO}_3^- \rightarrow \text{CrO}_4^{2-} + \text{I}^-$$
10. a) Write one chemical test to detect the presence of the Sulphur in a given organic compound. Write chemical equation for the reaction involved 3
- b) Identify the nucleophiles and electrophiles from the following.
- a. NO_2^+ , RNH_2 , BCl_3 , $\text{C}_2\text{H}_5\text{O}^-$
11. a) Give a pair of functional isomers of $\text{C}_3\text{H}_8\text{O}$. 3
- b) Define hyper conjugation.
- c) Draw the resonating structures of Phenol ($\text{C}_6\text{H}_5\text{OH}$).

End of the Question Paper