Adabistan-e-Soophia

2nd Term Examination 2020 – 21

Student's Name														
Class	**Pre – IX**		**Roll #**					**Paper**		**Chemistry**				
QUESTION NUMBER			**1**	**2**	**3**	**4**	**5**		**Total**					
MAXIMUM MARKS			12	30	09	09	09		**60**					
MARKS OBTAINED														
CHECKED BY:														

1. **Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink. Cutting or filling two or more times result is zero mark in that question.**   **(15)**

Sr #	Questions	(A)	(B)	(C)	(D)
i.	The molar mass of H_2SO_4 is:	$98 amu$	$98 g$	$9.8 g$	$9.8 amu$
ii.	Example of molecular ion is:	CH_4^+	He^+	N_2^+	all of these
iii.	Mass of a proton is:	$1.0087 amu$	$1.674 \times 10^{-24} g$	$1.0073 amu$	$9.106 \times 10^{-28} g$
iv.	Mass number of Nitrogen is:	7	14	28	17
v.	The concept of orbit is used by:	J.J Thomson	Rutherford	Bohr	Plank
vi.	Deuterium is used to make:	hard water	soft water	heavy water	light water
vii.	The isotope $C-12$ is present in abundance of	96.9%	97.6%	99.7%	none of these
viii.	Which one is not the right option for isotopes?	they have same number of neutrons	they have same number of protons	they have same electronic configuration	they have same atomic number
ix.	Transition elements are:	all gases	all metals	all non-metals	all metalloid
x.	Mendeleev periodic table was based upon the:	electronic configuration	atomic mass	atomic number	proton number
xi.	Point out the incorrect statement about electron affinity:	it is measured in $KJmol^-$	it involves release of energy	it decreases in a period	it decreases in a group
xii.	General electronic configuration of Nobel gases is:	ns^2np^1	ns^2np^2	ns^2np^5	ns^2np^6

(Section – I)

Note: Don't use ink remover anywhere in the paper.

Write proper question numbers and part numbers as mentioned in question paper.

2.   Attempt the following questions. (Any Fifteen)   **(15x2=30)**

     i.   Define free radicals. How they are generated?

     ii.   What is meant by Gram atomic mass?

     iii.   You have a piece of coal (carbon) weighing 9.0 gram. Calculate the number of moles of coal in the given mass.

     iv.   Define empirical formula. What is the empirical formula of sand and glucose?

     v.   Define Avogadro's number. How it is related to mole?

     vi.   Differentiate between Anion and cation.

     vii.   What are the observations made by Rutherford?

     viii.   What are the defects in Rutherford's atomic model?

     ix.   Define electronic configuration. What is the electronic configuration of Al^{3+}?

     x.   Define isotopes with example of hydrogen.

     xi.   What is carbon dating?

     xii.   What are the properties of neutron?

     xiii.   Define Dobereiner's triads.

     xiv.   What is Mendeleev's periodic law?

     xv.   Define atomic radius.

     xvi.   Define transition metals.

     xvii.   How atomic number is more fundamental property than atomic mass?

(Section – II)

Note: Solve the following questions. (Any Two) (9x2=18)

3. **(a)** What are different types of molecules? **(05)**

(b) What is the significance of chemical formula? **(04)**

4. **(a)** What are the postulates of Bohr's atomic model? **(05)**

(b) Write any four properties of Cathode rays? **(04)**

5. **(a)** What are the salient features of long form of periodic table? **(05)**

(b) Write a note on electron affinity? **(04)**