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FIRST PERIODIC TEST-2018-19

SUBJECT-CHEMISTRY

CLASS-XI

TIME : 90 min **Max.Marks : 50**

All questions are compulsory.

Q 1. How many significant figures are there in the following? [1]

(i) 4.00×10^6 (ii) 0.00020

Q 2. Write the S.I . unit of mass . [1]

Q 3.Whose charge / mass (e/m) ratio is higher between electron and proton ? [1]

Q 4. Write the electronic configuration of :- (i) Cu (Z = 29) (ii) Cu^{+2} [2]

Q 5. How many electrons in Sulphur (Z = 16) can have (n + l) = 3 . [2]

Q 6. Define mole . What is the mass of carbon present in 0.5 mole of $K_4Fe(CN)_6$. [3]

Q 7. State Heisenberg 's uncertainty Principal .Write mathematical expression also . [3]

Q 8..Explain with example :- (i) Pauli's principle (ii) Hund's rule of maximum multiplicity [3]

Q 9. Complete the following table ;- [3]

Name of the particle	Atomic no. (Z)	Mass No. (A)	No. of electron (e)	No. of proton (p)	No. of neutron (n)
Aluminium ion		27	10		
Cuprous ion			28		35

Q 10 .Calculate wave number and frequency of yellow radiations having wave length 5800 A^0 . [3]

Q 11 .Write any three properties of cathode rays . [3]

Q.12. How many grams of Na_2CO_3 should be dissolved to make 100 ml of 0.15 M Na_2CO_3 ? [3]

Q 13. State law of multiple proportion .Explain with suitable example . [3]

Q.14 Different type of electromagnetic waves are playing a very important role in our day to day life . Use of X rays and ultrasound waves is very well known in the medical field. Microwaves heat up our food in the microwave oven. Our cell phone works by emitting and catching radiation. No doubt all these have proved very helpful but there are strong waves that these radiations are harmful if we are exposed .

Answer the following :-

(a) What values are expressed in the above paragraph? Write any two . [4]

(b)Why it is advised not to keep your cellphone in the breast pocket of your shirt?

(c)Why a person should go for minimum X- ray and a pregnant woman should not go for X-ray at all?

Q 15 . Explain alpha ray scattering experiment . Discuss observations and conclusions . [5]

Q 16. [a] 80 gm H_2 reacted with 80 gm of O_2 to form water . Find out the mass of water formed . Which one is the limiting reagent . [5]

[b]Calculate the % composition of oxygen in $Na_2CO_3 . 10H_2O$.[At wt :- Na =23 ,C = 12,O = 16 ,H=1]

Q.17. A compound contains 4.07% Hydrogen, 24.47%Carbon & 71.65 % Chlorine. Its molar mass is 98.96 gm. What is its empirical formula and molecular formula? [5]