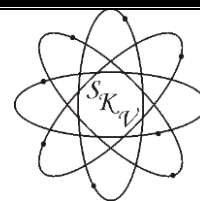


## CHEMISTRY TEST 2010-11

STD : XI  
CHAP : OT - 1  
MARKS : 40  
DURA : 1.00 Hr



### MULTIPLE CHOICE QUESTIONS

- Which system was devised for various units by French academy of science?  
a) Fundamental system                      b) metric system  
c) scientific system                          d) none
- Mention unit of luminous intensity?  
a) Meter                      b) Kelvin                      c) Ampere                      d) candela
- Isobars have which of the following?  
a) Protons are different                      b) atomic mass is same  
c) atomic no. is different                      d) all
- What is the value of Avogadro number?  
a)  $6.022 \times 10^{23}$                       b)  $6.022 \times 10^{-23}$                       c)  $6.22 \times 10^{23}$                       d)  $6.22 \times 10^{-23}$
- Mention no. of neutrons and protons in oxygen?  
a) 8, 9                      b) 8, 16                      c) 8, 8                      d) 16, 8
- Which information is given by a balanced chemical reaction?  
a) Process                      b) quantitative                      c) weight                      d) reactivity
- Molecular and equivalent weight are same. Then what about normality and molarity?  
a) Same                      b) half                      c) zero                      d) one
- Which of the following has significant no. 2?  
a) 12.08                      b) 0.0018                      c) 8.001                      d) 20.42
- How many fundamental units are there in SI system?  
a) 5                      b) 6                      c) 7                      d) 8
- What are the masses of isotopes of chlorine?  
a) 35, 37                      b) 35, 36                      c) 35, 39                      d) 35, 33
- In which year SI system was adopted?  
a) 1947                      b) 1962                      c) 1960                      d) 1791
- How many moles of  $\text{FeCl}_3$  are present in 800 ml 2.4 M of  $\text{FeCl}_3$  solution?  
a) 2.92                      b) 1.82                      c) 3.92                      d) 1.92
- How much % of H is present in  $\text{NH}_3$ ?  
a) 82.3 %                      b) 17.6 %                      c) 92.3 %                      d) 27.6%
- One atomic mass unit is how much part the mass of carbon – 12 atoms?  
a) 1/4                      b) 1/12                      c) 1/8                      d) 1/16

15. How many H atoms are present in 1 mole of  $\text{H}_2\text{O}$  molecule?  
 a)  $1.1 \times 10^{24}$       b)  $1.2 \times 10^{24}$       c)  $1.5 \times 10^{24}$       d)  $6.023 \times 10^{24}$
16. Which of the following is not a fundamental unit?  
 a) meter      b) kilogram      c) gram      d) second
17. Significant figure in 4.635 is?  
 a) 1      b) 2      c) 3      d) 4
18. Sugar forms which type of mixture with water?  
 a) Heterogeneous      b) Homogeneous      c) dye      d) none
19. Which of the following has the largest number of atoms?  
 a) 1g of ozone      b) 1g of nitrogen      c) 1g of helium      d) 1g of oxygen
20. What is the number of moles in 360 g of water?  
 a) 21      b) 19      c) 20      d) 22

### SHORT QUESTIONS

1. What is the law called which deals with the equal volumes of gases and equal number of molecules.
2. Name the type of mixture if its composition is not uniform throughout.
3. Express 432,000 in scientific notation.
4. What is the S.I. unit of Volume.
5. One liter of a gas is at a pressure of  $10^{-7}$  mm of Hg at  $25^\circ\text{C}$ . How many molecules are present in the vessel?
6. How many moles of electron weigh one kilogram?
7. Find the molarity of solution prepared by dissolving 4g of NaOH in 3L of solution.
8. How much water is required to dilute 10ml of 10N hydrochloric acid to make it exactly decinormal?
9. 20 gms of glucose dissolved in 200g of water to prepare a solution. Calculate the mass percentage of glucose in the solution.
10. Find the number of oxygen atoms in 10.6 g of  $\text{Na}_2\text{CO}_3$ .
11. One atom of an element weighs  $1.8 \times 10^{-22}$  gm. What is the atomic mass of element?
12. Solve the following and express the answer in standard exponential form  $(2.0 \times 10^{13}) + (1.5 \times 10^{14})$ .
13. Density of mercury is 13.6 g/cc. Find its density in  $\text{Kg m}^{-3}$ .
14. What is the mass of 3 gram atoms of calcium?
15. What is scientific notation? Represent the following numbers in scientific notation-  
 (i) 0.00001492      (ii) 143.51
16. Find the molarity of solution prepared by dissolving 7.1g of  $\text{Na}_2\text{SO}_4$  in 100ml of aqueous solution.
17. How many moles of sulphur will be produced when 2 moles of  $\text{H}_2\text{S}$  react with 11.2 L of  $\text{SO}_2$  at NTP.
18. Find the volume of  $\text{CO}_2$  liberated at STP when 10g of 90% pure limestone is completely heated.
19. A metal nitride,  $\text{M}_3\text{N}_2$  has 28% nitrogen. What is the atomic mass of metal M?
20. There are two isotope of an element with atomic mass y. The atomic mass of heavier isotope is  $y+2$  and that of lighter one is  $y-1$ . Calculate the abundance of lighter isotope.