

X – SCIENCE – UNIT -7 – MODEL QUESTION PAPER – 2024

Total mark : 25 m

Choose the correct best answer (5 x 1= 5m)

- 1.. Which of the following is a triatomic molecule?
a. Glucose b. Helium c. Carbon dioxide d. Hydrogen
2. Mass of 1 mole of Nitrogen atom is
a. 28 amu b. 14 amu c. 28 g d. 14 g
3. Which of the following statement is incorrect?
a. 12 gram of C – 12 contains Avogadro's number of atoms.
b. One mole of oxygen gas contains Avogadro's number of molecules.
c. One mole of hydrogen gas contains Avogadro's number of atoms.
d. One mole of electrons stands for 6.023×10^{23} electrons
4. The gram molecular mass of oxygen molecule is
a. 16 g b. 18 g c. 32 g d. 17 g
5. In the nucleus of $^{20}\text{Ca}_{40}$, there are
a. 20 protons and 40 neutrons b. 20 protons and 20 neutrons
c. 20 protons and 40 electrons d. 40 protons and 20 electrons

Answer any THREE questions (3 x 2 =6m)

6. Define: Relative atomic mass.

7. Write the different types of isotopes of oxygen and its percentage abundance.

8 Define: Atomicity

9. Give any two examples for hetero diatomic molecules.

10. What is Molar volume of a gas?

Answer any TWO questions (3 x 3 =9m)

11. Find the percentage of Nitrogen in ammonia.

12. Calculate the % of each element in calcium carbonate. (Atomic mass: C-12, O-16, Ca -40)

13. Calculation of molecular mass Calculate the gram molecular mass of the following.

(i) H_2O (ii) CO_2

14. Calculation of molecular mass Calculate the gram molecular mass of the following. $Ca_3(PO_4)_2$

15. difference between Atoms and Molecules

Answer any ONE questions (1 x 5 =5m)

16. Give the salient features of “Modern atomic theory”

17. How many grams are there in the following?

i. 2 moles of hydrogen molecule, H_2

ii. 3 moles of chlorine molecule, Cl_2

iii. 5 moles of sulphur molecule, S_8

iv. 4 moles of phosphorous molecule, P_4

PREPARED BY

Dr.G.THIRUMOORTHY, M.Sc, B.ED, PH.D physics

GOVT ARTS COLLEGE (A) SALEM-7

8610560810

THIRUPHYSICS1994@GMAIL.COM

www.Padasalai.Net