BOARD OF SECONDARY EDUCATION KARACHI
S.S.C (ANNUAL) EXAMINATION 2022
CHEMISTRY (THEORY)
CLASS IX (SCIENCE GROUP)

Time: 1.5 Hours

(Marks: 40)

SECTION "A"

MULTIPLE CHOICE QUESTIONS (MCQs)   (15 Marks)

NOTE: 15 MCQs will be given from the whole syllabus. Each carries <u>1 Mark</u>.   (CODE: CH-101)

1. Choose the best answer.

i. Butter is an example of a solution :
   a) Gas-liquid
   b) Gas-solid
   c) Solid-liquid
   d) Liquid-solid

ii. Two fluorine atoms share one electron each in their outermost shell to achieve the electronic configuration of :
   a) Xe
   b) Ar
   c) Kr
   d) Ne

iii. The screen used in Rutherford atomic model is made up of :
   a) Aluminum foil
   b) Sodium sulphide
   c) Zinc sulphide
   d) Aluminum sulphide

iv. Noble metals like platinum, silver, gold are difficult to:
   a) Reduce
   b) Oxidize
   c) Both a and b
   d) None

v. Calculate the number of moles of 20g of $NaHCO_3$:
   a) 0.283
   b) 0.238
   c) 0.823
   d) 0.328

vi. Synthetic resins are used in places where :
   a) Electric resistance is required
   b) Water resistance is required
   c) Adhesion is required
   d) Friction is required

vii. The isotope C-12 is present in abundance of :
   a) 98.8%
   b) 98.9%
   c) 99.8%
   d) 89.9%

viii. The alloy of Ag-Cu is known as:
   a) Solder
   b) Pewter
   c) Sterling silver
   d) Alnico

ix. Which one is an example of a true solution?
   a) Solution of starch
   b) solution of soap
   c) Ink in water
   d) toothpaste

x. 4th and 5th period in periodic table are known as:
   a) Short period
   b) Long period
   c) Normal period
   d) Very long period

xi. $1dm^3 =$
   a) 1L
   b) $1000cm^3$
   c) 1000ml
   d) All of these

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xii. Who proposed the idea of an atom?
a) Plato
c) Aristotle
b) Democritus
d) Cavendish

xiii. Which one of these has sharp melting point in solids:
a) Plastic
c) Rubber
b) Glass
d) Diamond

xiv. One atmospheric pressure is equal to
a) 10325Pa
c) 101325 Pa
b) 106075 Pa
d) 10523 Pa

xv. There are ____ groups and ____ periods in the modern periodic table.
a) 6,7
c) 8,7
b) 7,6
d) 7,8

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SECTION "B"

(SHORT ANSWERS QUESTIONS)   (15 Marks)

NOTE: Answer any five (5) questions from this section. Each carries 3 Marks.

2.

I.   Explain discovery of neutron and write two properties of neutron.

II. Write the difference of metals and non-metals.

III. State boyles law. A container holds $39m^3$ of air at a temperature of $55C^o$. If the volume changed to $69m^3$, what will be the temperature of the gas?

IV. What do you meant by Allotropy? Write names of any four allotropes of Carbon.

V.   Define diffusion and write factors affecting diffusion.

VI. Define molarity. What is the mass of oxalic acid present in $0.1dm^3$ of 3.3 molar solution?

VII. Define the following with trend in periodic table.

    a) Shielding effect   c) Atomic radius

    b) Electron affinity

SECTION "C"

(DESCRIPTIVE ANSWER QUESTIONS)   (10 Marks)

NOTE: Answer any one (1) question from this section. Each part carries 5 Marks.

3.

    a) Define solubility. Explain its three factors briefly.

    b) State first and second law of faraday. Give construction and working of dry cell with well labeled diagram.

4.

    a) Briefly explain the Rutherford experiment.

    b) Define covalent and its types with examples.