MCQ1: One of the following pair cannot constitute suitable pair for n-type conductor?

Answer: Antimony: Arsenic

MCQ2: One of the following is not true about n-type conductor

Answer: There is no chemical but physical interaction between the impurity and the semi conductor

MCQ3: One of the following is not a right pair for p-type semi conductor

Answer: Aluminium: indium

MCQ4: One of the following is not associated with the conductivity of semi conductors due to doping

Answer: o-type

MCQ5: One of the following is not a class of crystal solids

Answer: Hydrogen bonded

MCQ6: One of the following does not describe the crystal structure of metallic solid

Answer: Trigonal-close packing

MCQ7: The unit of one of the following quantity is a derived unit

Answer: Momentum of electron

MCQ8: When iron metal corrodes, its colour changes to \_\_\_\_

Answer: Brown

MCQ9: One of the following is not a chemical instrument

Answer: Filter paper

MCQ10: The pressure exerted by 0.5 cm3 of gas is 1 Pa at 273 K. If the temperature of the gas changes to 546 K and its pressure to 3 Pa, what will be the new volume of the gas

Answer: 0.3 cm3

MCQ11: One of the following combination does not match for gas law

Answer: Gay-Lussac law : Constant volume

MCQ12: If 3.00 litre sample of gas at 1.00 atm is compressed to 0.600 litre at constant temperature. Calculate the final pressure of the gas

Answer: 5.0 atm

MCQ13: Calculate the volume which 6.00 litres of gas at 0 °C will occupy at 125°C at constant pressure

Answer: 8.75 litres

MCQ14: Calculate the volume occupy by 32 g of oxygen at stp

Answer: 44.8 dm3

MCQ15: One of the following is not correct

Answer: 1 atm = 1 Pa

MCQ16: Calculate the volume occupied by 0.0660 kg of carbon (IV) oxide gas at a temperature of 300.2 K and a pressure of 9.41 x I0 Pa assuming ideal behaviour

Answer: 0.0398m3

MCQ17: Hydrogen bonding may not affect the physical properties of one of the following molecules

Answer: CsF

MCQ18: Which of the following pair does not agrees with the kinetic theory of gases

Answer: Temperature = Average collision

MCQ19: The length of one axis of a cubic crystal is 0.05 cm. What is the length of the next minimum axis?

Answer: 0.05 cm

MCQ20: Which of the following is not true about Graham’s law

Answer: Diffusion rate is proportional to density

MCQ21: Use Dalton law to calculate the total vapour pressure exerted by a mixture of A and B if the following data were obtained; XA = 0.40, XB = 0.60, PA0 = 1710 mm/Hg and PB0 = 127 mm/Hg

Answer: 760 mm/Hg

MCQ22: Which of the following pair does not match?

Answer: Hexagonal:K2O

MCQ23: Which of the following pair does not match?

Answer: Hexagonal: a=b=c

MCQ24: Which of the following salts can form precipitate

Answer: AgCl

MCQ25: The value of the gas constant R is often expressed as I 987 cal moJ-1 K 1 • Obtain its value in SI units (Given 1 ca; = 4.184 J)

Answer: 8.314 J/mol/K

MCQ26: 16 g of oxygen gas occupies a volume of 22.4 dm3. Calculate the density of the gas

Answer: 0.000714 g/dm3

MCQ27: The concentration of an acid in a sample can be estimated by \_\_\_\_

Answer: Titration

MCQ28: Consider four gases whose densities are (i) 0.2, (ii) 0.4, (iii) 0.6 and (iv) 0.8 g/cm3. The order of diffusion will be

Answer: i&gt;ii&gt;iii&gt;iv

MCQ29: The pressure of air in a system is 10 Pa and the volume occupied is 4 m3. If the the volume is increased to 16 m3, what will be the new pressure

Answer: 2.5 pa

MCQ30: The order of intermolecular distance among the three state of matter is \_\_

Answer: Gas&gt;liquid&gt;solid

MCQ31: The product of pressure and volume of a gas at 300 K is 500 Pam3. Calculate the number of moles of the gas

Answer: 0.2

MCQ32: 2 moles of water was mixed with 3 moles of ethanol. The ratio of the mole fraction of ethanol to that of water is \_\_\_\_

Answer: 1.5

MCQ33: An ideal gas will not obey one of the following law

Answer: Van der waal

MCQ34: A real gas will obey one of the following law

Answer: Van der waal law

MCQ35: A solute was dissolved in two separate immiscible solvent. If 2.0g of the salt dissolve in the first solvent and 4.0g dissolved in the second solvent. Calculate the partition coefficient if the two solution are combined together

Answer: 0.5

FBQ1: Modern approach to chemistry deals with equilibrium properties, ability to change and \_\_\_\_\_\_

Answer: Structure

FBQ2: Physical Chemistry is concern with two major aspects, namely ability to change and ­­­­­­­­­­\_\_\_\_\_

Answer: Equilibrium properties

FBQ3: International system of unit or systeme internatwnale can be written as an acronym \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer: SI unit

FBQ4: Temperature, length, time and mass are examples of \_\_\_\_\_\_\_\_

Answer: basic quantities

FBQ5: Meter, kelvin, second and kilogram are examples of \_\_\_\_\_\_\_

Answer: Basic units

FBQ6: A skilful process of identifying. substituting and using correct apparatusappropriately in the laboratory is called \_\_\_\_\_

Answer: Instrumentation

FBQ7: Apparatus that arc basically used for determining the melting points of substances are called \_\_\_\_\_\_\_\_\_\_\_\_

Answer: melting point tubes

FBQ8: The Beckman thermometer IS used in the Beckman·s apparatus for dctem1inmg\_\_\_\_ of a substance

Answer: Freezing point

FBQ9: \_\_\_\_\_ is an instrument that can be used to measure the strength of an acid or a base

Answer: pH meter

FBQ10: A homogenous materials that contain only one substance is called a \_\_\_\_\_\_\_\_\_\_\_

Answer: pure substance

FBQ11: Constituents in a solution can be separated by applying the principle of \_\_\_\_\_\_\_\_\_\_\_

Answer: Equilibrium

Fill in the Blank (FBQs) 11: The process of separating a pure substance from a solution is called \_\_\_\_\_\_\_

Answer: crystallization

FBQ13: In a gas. the molecules on the average are separatedby large \_\_\_\_\_\_ distances

Answer: Intermolecular

FBQ14: -\_\_\_\_\_\_is a state of matter that does not have a definite shape nor volume

Answer: Gas

FBQ15: At constant temperature, the gas law that is most suitable is called \_\_\_\_\_ law

Answer: Boyle’s

FBQ16: At constant pressure, properties of gases that undergo changes are \_\_\_\_\_\_\_

Answer: volume and temperature

FBQ17: A gas that obeys all the gas laws is called an \_\_\_\_\_\_

Answer: ideal gas

FBQ18: At high temperature and low pressure, gases tend to undergo phenomena that is called \_\_\_\_\_\_\_\_\_\_\_

Answer: Expansion

FBQ19: At low temperature and high pressure, gases tend to \_\_\_\_\_\_\_\_\_\_

Answer: Contract

FBQ20: The temperature, above which a substances can exist only in gaseous state is called \_\_\_\_\_\_\_\_\_

Answer: Critical temperature

FBQ21: The mathematical equation for Boyle’s law can be written as \_\_\_\_\_\_\_\_\_\_\_

Answer: PV = constant

FBQ22: The mathematical equation for Charles law can be written as \_\_\_\_\_\_\_\_

Answer: V/T = constant

FBQ23: A plot showing the variation of volume with temperature at constant pressure is called \_

Answer: An isobar

FBQ24: An expression for the combined gas law can be expressed as \_\_\_\_\_\_\_\_

Answer: PV/T = constant

FBQ25: The equation of ideal gas can be expressed as \_\_\_\_\_\_

Answer: PV = nRT

FBQ26: Numerical value of the universal gas constant is \_\_\_\_ J/K/mol

Answer: 8.314

FBQ27: The volume occupied by 1 mole of oxygen gas at s.t.p. is \_\_\_\_\_\_\_\_ dm3

Answer: 22.4

FBQ28: The individual pressure of a gas in a mixture of gases is called \_\_\_\_\_\_

Answer: Partial pressure

FBQ29: The gas law that consider the total pressure of a gas as a function of the pressures exerted by the individual gases that make up the mixture is \_\_\_\_\_\_\_\_\_\_

Answer: Dalton law of partial pressure

FBQ30: For 1 mole of an ideal gas, a plot of PV against T will give a straight line whose slope is equal to \_\_\_\_\_\_\_\_\_\_

Answer: 8.314

FBQ31: The rate at which gases diffuse is inversely proportional to the Square root of their \_\_\_\_\_\_\_\_\_\_\_\_

Answer: Densities

FBQ32: The gas law that explain the effusion of gas is \_\_\_\_\_\_\_\_\_\_\_\_

Answer: Graham law

FBQ33: Gas molecules confined to a container are in a state of \_\_\_\_\_\_\_\_\_\_\_\_ motion

Answer: Constant

FBQ34: At relatively low pressure, there are no \_\_\_\_\_\_\_\_\_\_\_ forces between gas molecules

Answer: Intermolecular

FBQ35: \_\_\_\_\_\_\_\_\_ of a gas is proportional to the mean kinetic energy of the molecules in a gas

Answer: Absolute temperature