Miraf Teachers' Academy

Academic Year: 2012 E.C
Semester: II
Name: ——————————————
Full date ——————————

Subject: Chemistry
Assessment Type: Mid Exam
Grade: 9th No–––

Part I-Write true if the statement is correct or false if it is not.

——1.A catalyst increases the reaction by lowering activation energy.
——2.The concentration of reactants and products must be equal at the state of chemical equilibrium.
——3.Liquids have a definite shape and a definite volume.
——4.The oxidation number of all elements in free state is zero.
——5.Reduction is the process in which a substance gains electrons.
——6.The lowest attainable temperature is -273.15^{0}c.

Part II. Matching -type questions.

A	**B**
——7.Analysis reactions	A. Combination reactions
——8.Synthesis reactions	B. Decomposition reactions
——9.Addition reactions	C. Single displacement reactions
——10.Single replacement reactions	D. Double displacement reactions
——11.Methatetical reactions	
——12.Double replacement reactions	
——13.Composition reaction	

Part III.Choose the correct answer from the given alternatives.

——14.Which of the following reactions is a single displacement reaction?
A. $H_2O+CO_2 \longrightarrow H_2CO_3$ C. $CaCO_3 \longrightarrow CaO+CO_2$
B. $Zn+H_2SO_4 \rightarrow ZnSO_4+H_2$ D. $2NaHCO_3 \longrightarrow Na_2CO_3+CO_2+H_2O$

——15.50^{0}C of a temperature equals to ———kelvin.
A.100 B.273 C.323 D.300

——16.In an oxidation-reduction reaction, the oxidizing agent is:
A. reduced as it gains electrons C. Oxidized as it gains electrons
B. reduced as it loses electrons D. Oxidized as it loses electrons

——17.Consider the following equation representing the reaction at equilibrium:
$2SO_2(g) + O_2(g) \rightleftharpoons 2SO_3$+Heat,which change caused the equilibrium to shift to the left?
A. Increasing temperature C. Increasing pressure
B. Addition of a suitable catalyst D. Increasing the concentration of SO_2 and O_2

——18.The statement "The volume of a given mass of a gas is directly proportional to kelvin temperature provided that the pressure remain constant" is the law of
A. Boyle's B. Charles' C. Graham's D. Combined gas

——19.If a sample of nitrogen gas occupies 5.0L at 298K,at what temperature will it occupy 10.0L at a constant pressure?
A.124K B.149K C.298K D.596K

——20.How would the equilibrium of the system be affected by increasing temperature in the reaction below?
$N_2(g) + 2H_2O(g)$+Heat $\rightleftharpoons 2NO(g)+2H_2(g)$

A. Shifts to the right C. Shifts to the left
B. Shifts to the reverse reaction D. No effect

——21.Gases obey ideal gas law at

A. low temperature and high pressure.

B. High temperature and low pressure

C. low temperature and low pressure

D.high temperature and high pressure.

——22.What is the molecular mass of sucrose, $C_{12}H_{22}O_{11}$?

A.180g/mol B.342g/mol C.45g/mol D.144g/mol

——23.A certain quantity of a gas occupies 10L at 20^0C and a pressure of 1 atm. At what pressure will the volume of the gas be 1L,if the temperature kept constant?

A.20 atm B.10 atm C.5 atm D.25 atm

——24.The oxidation states of boron in B2CI4 and Oxygen in H2O are, respectively,

A.+2 and-2 B.+2 and -1 C.+3 and -1 D.+3 and -3

——25.Which change will shift the equilibrium position to the right in the reaction below?

$2\ SO_2(g) + O_2(g) \rightleftharpoons 2SO_3(g), \Delta H = -197KJ/mol.$

A. Increasing volume C. Increasing pressure

B. Increasing temperature D. Adding a catalyst

——26.How many grams of H_2O are produced in 2.25 liters of H_2 (g) at STP?

A.1.8 B.0.8 C.40.5 D.81

——27.The oxidation number of nitrogen in NH_3, HNO_3, and NO_2 are respectively:

A.-3,+5,+4 B.-3,+4,-4 C.-3,-5,+5 D.+3,+5,+4

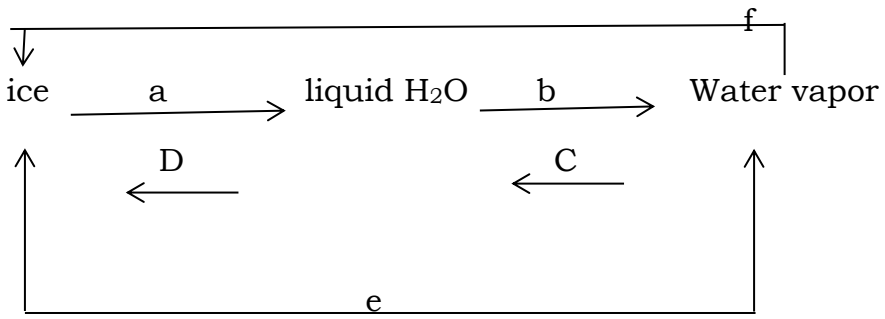
——28.What volume of 2.5 moles of oxygen gas would occupy at STP?

A.56L B.22.4L C.273L D.2.5L

——29.The percentage by mass of water in $CUSO_4.5H_2O$ is

A.7.2% B.14% C.36.1% D.56.4%

Questions number 30,31 and 32 are based on the following diagram.



——30.What is the value of letter 'a'?

A. Evaporation B. Sublimation C. Deposition D. melting

——31.What is the value of letter 'd'?

A. Boiling B. Condensation C. Deposition D. freezing

——32.Which letter represents the natural formation of rain?

A.C B. e C. d D. f

Part Iv: Answer the following questions accordingly.

33.————————is the process where a substance gains electrons.

34.————————reactions take place in both forward and backward directions.

35. The chemical equilibrium is affected by———————— ,————————,and————————.

36. List down types of chemical reactions.

Good Luck!

Set by: Mr Dugassa Guta