**أسئلة إرشادية للاختبار النهائى**

1. A reaction is said to be reversible that can proceed in……………….

1. forward (b) reverse (c) forward and reverse (d) very fast

2. The equilibrium constant for the following reaction is ……………..

2 N2O4 (g) 4NO2 (g) + O2 (g)

1. k=[NO2]4[O2] ( b) k=[N2O4]2 (c) k=[NO2]4[O2] (d) k=[NO2]4[O2]2

[N2O4]2 [NO2]4 [O2] [N2O4] [N2O4]

3- NH3 is a base because it …………………………………..

a- donors a proton water b- accepts a proton from water c- produces H+ in aqueous solution d- produces OH-  in aqueous solution

4. The chemical formula of Sodium bicarbonate is……………………..

1. Na2CO3 (b) NaOH (c) NH3 (d) NaHCO3

5. The formula of Citric acid is……………..

1. H2C2 H3O2 (b) H3C6 H5O7 (c) HC2H3O2 (d) H2CO3

6. Internal energy (E) of system is…………………………..

a) kinetic energy b) potential energy c) kinetic and potential energy d) heat

7. We measure change in internal energy by………………………….

a) Coffee – cup Colorimeter b) Ammeter c) Bomb Colorimeter d) Colorimeter

8. An endothermic reaction……………………………

a) Absorbed heat from the surrounding b) Gives off heat to the surrounding

c) A chemical reaction with negative ΔH d) A chemical reaction with zero ΔH

9. Hydrocarbon compounds composed of only…………………………….

a) Hydrogen and oxygen b) Hydrogen and carbon c) Carbon and nitrogen

d) Hydrogen and flour

10. The name of CH3CH2CH3 is.....................................................

a) Ethane b) Butane c) Propane d) Propene

11. Molecular formula for benzene is..............................

a) C6H14  b) C2H6 c) C6H10 d) C6H6

12. Which of the following is ethanol?

a) CH3CH2CH2OH b) CH3CH2OH c) CH3COH d- CH3CO2H

13. All of the following is biopolymers except............................................

a) Protein b) Polysaccharides c) lipids d) Nucleic acid

14. Molecular formula of Glucose is …………………………………………..

a) C6H12O6 b) C5H10O5 c) C6H14O6 d) C6H6O12

15. Example of ether ………………………….

a) CH3OH b) CH3COH c) CH3COCH3  d) CH3CH2OCH2CH3