

Date Planned : __ / __ / __	Daily Tutorial Sheet-2	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level-1	Exact Duration : _____

11.  $\text{NO}_2$  is oxidised to nitrate ion  $\text{NO}_3^-$  which when washed into soil acts as a :  
 (A) pesticide (B) insecticide (C) fertilizer (D) Both (A) & (B)
12. In automobile engines (at high temperature) when fossil is burnt, dinitrogen and dioxygen combine to yield significant quantities of the gases 'P' & 'Q'.  

$$\text{N}_2(\text{g}) + \text{O}_2(\text{g}) \xrightarrow{1488\text{K}} 2\text{P}(\text{g}) ; 2\text{P}(\text{g}) + \text{O}_2(\text{g}) \longrightarrow 2\text{Q}(\text{g})$$
  
 Rate of production of Q is faster when P reacts with ozone in the stratosphere  $\text{P}(\text{g}) + \text{O}_3(\text{g}) \rightarrow \text{Q}(\text{g}) + \text{O}_2(\text{g})$   
 P & Q are respectively :  
 (A)  $\text{N}_2$  & NO (B)  $\text{NO}_2$  & NO (C) NO &  $\text{NO}_2$  (D) NO &  $\text{N}_2$
13. Which of the following statements regarding the effects of  $\text{NO}_2$ , false ?  
 (A) Higher concentrations of  $\text{NO}_2$  damage the leaves of plants and retard the rate of photosynthesis  
 (B)  $\text{NO}_2$  is a lung irritant and can lead to acute respiratory disease in children  
 (C)  $\text{NO}_2$  is harmful to various textile fibers and metals  
 (D) None of the above
14. Which of the following statements regarding hydrocarbons false ?  
 (A) They are composed of only hydrogen and carbon  
 (B) They are formed by complete combustion of fuel in automobiles  
 (C) They are carcinogenic i.e. they cause cancer  
 (D) None of the above
15. 'Y' is a colourless, odourless gaseous air pollutant. It is highly poisonous to living beings because of its ability to block the delivery of oxygen to the organs & tissues 'Y' is :  
 (A)  $\text{CO}_2$  (B) CO (C)  $\text{SO}_2$  (D)  $\text{NO}_2$
16. A gas 'G' combines with haemoglobin to form carboxyhaemoglobin. In blood, when the concentration of carboxyhaemoglobin reaches about 3–4 percent, the oxygen carrying capacity of blood is greatly reduced. 'G' is :  
 (A)  $\text{CO}_2$  (B)  $\text{NO}_2$  (C)  $\text{SO}_2$  (D) CO
17. Carbon monoxide gas combines with haemoglobin to form carboxyhaemoglobin. Approximately how many times is carboxyhaemoglobin more stable than the oxygen-haemoglobin complex ?  
 (A) 200 (B) 550 (C) 500 (D) 300
18. The oxygen deficiency caused due to carbon monoxide poisoning results in :  
 (A) headache (B) weak eyesight  
 (C) cardiovascular disorder (D) All of the above

