

AIPMT 2008

1. An organic compound contains carbon, hydrogen and oxygen. Its elemental analysis gave C, 38.71% and H, 9.67%. The empirical formula of the compound would be :-
(1) CHO (2) CH₄O (3) CH₃O (4) CH₂O

AIPMT Pre.-2011

2. Which one of the following statement is not true ?
(1) pH of drinking water should be between 5.5–9.5
(2) Concentration of DO below 6 ppm is good for the growth of fish
(3) Clean water would have BOD value of less than 5 ppm
(4) Oxides of sulphur, nitrogen and carbon are the most widespread air pollutant
3. In Duma's method of estimation of nitrogen 0.35g of an organic compound gave 55 mL of nitrogen collected at 300 K temperature and 715 mm pressure. The percentage composition of nitrogen in the compound would be :
(Aqueous tension at 300 K = 15 mm)
(1) 15.45 (2) 16.45 (3) 17.45 (4) 14.45
4. The Lassaigne's extract is boiled with conc. HNO₃ while testing for the halogens. By doing so it :-
(1) decomposes Na₂S and NaCN, if formed
(2) helps in the precipitation of AgCl
(3) increases the solubility product of AgCl
(4) increases the concentration of NO₃⁻ ions

AIPMT Pre.-2012

5. Which one of the following statements regarding photochemical smog is not correct?
(1) Photochemical smog is formed through photochemical reaction involving solar energy
(2) Photochemical smog does not cause irritation in eyes and throat.
(3) Carbon monoxide does not play any role in photochemical smog formation
(4) Photochemical smog is an oxidising agent in character

AIPMT 2014

6. Which one of the following is **not** a common component of Photochemical Smog?
(1) Ozone
(2) Acrolein
(3) Peroxyacetyl nitrate
(4) Chlorofluorocarbons
7. In the Kjeldahl's method for estimation of nitrogen present in a soil sample, ammonia evolved from 0.75 g of sample neutralized 10 mL of 1 M H₂SO₄. The percentage of nitrogen in the soil is:
(1) 37.33 (2) 45.33
(3) 35.33 (4) 43.33

AIPMT 2015

8. In Duma's method for estimation of nitrogen, 0.25 g of an organic compound gave 40 mL of nitrogen collected at 300 K temperature and 725 mm pressure. If the aqueous tension at 300 K is 25 mm, the percentage of nitrogen in the compound is :-
(1) 18.20 (2) 16.76
(3) 15.76 (4) 17.36

NEET(UG) 2017

9. The most suitable method of separation of 1 : 1 mixture of ortho and para-nitrophenols is :
(1) Chromatography
(2) Crystallisation
(3) Steam distillation
(4) Sublimation
10. Which of the following is a sink for CO ?
(1) Micro organism present in the soil
(2) Oceans
(3) Plants
(4) Haemoglobin

NEET(UG) 2018

11. Which oxide of nitrogen is **not** a common pollutant introduced into the atmosphere both due to natural and human activity ?
(1) N₂O₅ (2) NO₂
(3) N₂O (4) NO

- 12.** Among the following, the one that is **not** a green house gas is :-
- | | |
|-------------------|---------------------|
| (1) nitrous oxide | (2) methane |
| (3) ozone | (4) sulphur dioxide |

- 13.** Paper chromatography is an example of:

- (1) Column chromatography
- (2) Adsorption chromatography
- (3) Partition chromatography
- (4) Thin layer chromatography

- 14.** Which of the following is **not** correct about carbon monoxide?
- (1) It is produced due to incomplete combustion
 - (2) It forms carboxyhaemoglobin
 - (3) It reduce oxygen carrying ability of blood
 - (4) The carboxyhaemoglobin (haemoglobin bound to CO) is less stable than oxyhaemoglobin.

- 15.** Which of the following statement is **NOT** true about acid rain ?
- (1) It is due to reaction of SO_2 , NO_2 and CO_2 with rain water
 - (2) Causes no damage to monuments like Taj Mahal.
 - (3) It is harmful for plants.
 - (4) Its pH is less than 5.6

- 16.** A liquid compound (x) can be purified by steam distillation only if it is
- (1) Steam volatile, immiscible with water
 - (2) Not steam volatile, miscible with water
 - (3) Steam volatile, miscible with water
 - (4) Not steam volatile, immiscible with water

- 17. Match List-I with List-II :**

List-I		List-II
(a) $2\text{SO}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{SO}_3(\text{g})$	(i)	Acid rain
(b) $\text{HOCl}(\text{g}) \xrightarrow{h\nu}$ $\overset{\bullet}{\text{O}}\text{H} + \overset{\bullet}{\text{Cl}}$	(ii)	Smog
(c) $\text{CaCO}_3 + \text{H}_2\text{SO}_4 \rightarrow \text{CaSO}_4 + \text{H}_2\text{O} + \text{CO}_2$	(iii)	Ozone depletion
(d) $\text{NO}_2(\text{g}) \xrightarrow{h\nu} \text{NO}(\text{g}) + \text{O}(\text{g})$	(iv)	Tropospheric pollution

Choose the **correct** answer from the options given below.

- (1) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
 (2) (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)
 (3) (a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)
 (4) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	3	2	2	1	2	4	1	2	3	1	1	4	3	4	2
Que.	16	17													
Ans.	1	3													