ANSWERS

I. Multiple Choice Questions (Type-I)

1. (i)

2. (iii)

3. (i)

4. (i)

5. (i)

6. (iii)

7. (ii)

8. (ii)

9. (i)

10. (iii)

11. (iii)

12. (iv)

II. Multiple Choice Questions (Type-II)

13. (iii), (iv)

14. (i), (ii)

15. (ii), (iii), (iv)

16. (i), (ii)

III. Short Answer Type

- 17. Trapping of heat by green house gases, namely carbon dioxide, methane, nitrous oxide, ozone and chlorofluorocarbons.
- 19. **[Hint :** Ozone prevents harmful UV radiations of the Sun from reaching to the Earth's surface, thereby it protects life from bad effects of UV radiations.]
- 21. CFC's are stable compounds. These undergo decomposition in presence of sunlight, as shown below :

Reactions: $CF_{2}Cl_{2}(g) \xrightarrow{UV} \dot{C}l(g) + \dot{C}F_{2}Cl(g)$

$$\overset{\bullet}{\text{Cl}}(g) + O_3(g) \longrightarrow \overset{\bullet}{\text{ClO}}(g) + O_2(g)$$

$$ClO(g) + O(g) \longrightarrow Cl(g) + O_{2}(g)$$

Chain reactions continue in which ozone layer is depleted.

- 23. **[Hint:** Process of eutrophication is responsible for this. Explain the effect of accumulation of phosphate from detergents and organic matter entering into the lake along with domestic waste.]
- 24. Biodegradable which are decomposed by bacteria.

Non-biodegradable - which cannot be decomposed by bacteria.

- 25. Sources of dissolved oxygen in water
 - (i) Photosynthesis
 - (ii) Natural aeration
 - (iii) Mechanical aeration
- 26. BOD is the measure of level of pollution caused by organic biodegradable material. Low value of BOD indicates that water contains less organic matter.

IV. Matching Type

$$35. \quad \text{(i)} \rightarrow \text{(c), (d)}$$

(ii)
$$\rightarrow$$
 (e), (d)

(iii)
$$\rightarrow$$
 (b)

(iv)
$$\rightarrow$$
 (a)

36. (i)
$$\rightarrow$$
 (d)

$$(ii) \rightarrow (e)$$

(iii)
$$\rightarrow$$
 (a)

$$\text{(iv)} \rightarrow \text{(c)}$$

$$(v) \rightarrow (b)$$

$$37. \quad \text{(i)} \rightarrow \text{(e)}$$

$$\text{(ii)} \rightarrow \text{(d)}$$

(iii)
$$\rightarrow$$
 (a)

$$\text{(iv)} \rightarrow \text{(b)}$$

$$\text{(v)} \rightarrow \text{(c)}$$

38. (i)
$$\rightarrow$$
 (a), (d)

(ii)
$$\rightarrow$$
 (c)

(iii)
$$\rightarrow$$
 (a)

$$(iv) \rightarrow (b)$$

V. Assertion and Reason Type

45. (iii)