



Time : 1 Hour 30 Minute

STD 10 Science
Chapter Based Test

Total Marks : 50

SECTION A

* Select and write one most appropriate option out of the four options given [7]
for each of the questions

- Which of the following is not a fossil fuel?
(A) LPG. (B) Natural gas. (C) Biogas. (D) CNG.
- Pick the right combination of terms which has no fossil fuel.
(A) Wind, ocean and coal. (B) Kerosene, wind and tide. (C) Wind, wood, sun. (D) Petroleum, wood, sun.
- The aim of Chipko movement was:
(A) To prevent deforestation (B) To support deforestation (C) To support urbanization (D) To prevent hybridization
- By constructing Khadin check-dams in level terrains:
(A) Underground water level increases (B) Underground water level decreases (C) Vegetation in the nearby areas are destroyed due to excess moisture (D) Underground water gets polluted
- Snakes are killed in large numbers because:
(A) They are very poisonous. (B) They kill rats. (C) Their skin is expensive. (D) They damage the crops.
- Select the wrong statement:
 - Forests provide variety of products.
 - Forests have greater plant diversity.
 - Forests do not conserve soil.
 - Forests conserve water.
- The main reason for the abundant coliform bacteria in the water of river Ganga is:
 - Immersion of ashes of the dead into the river.
 - Washing of clothes on the banks of river.
 - Discharge of industrial wastes into river water.
 - Disposal of unburnt corpses into river water.

* **Assertion - Reasoning based questions.** [3]

- In the following questions, a statement of Assertion is given by the corresponding statement of Reason. Of the statements, mark the correct answer as:
 - If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

- b. If both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
- c. If Assertion is true, but Reason is false.
- d. If Assertion is false, but Reason is true.
- e. If Assertion and Reason both are false.

Assertion: Coal is used for household purposes like cooking.

Reason: Petroleum is used in thermal power plants.

9. In the following questions, a statement of Assertion is given by the corresponding statement of Reason. Of the statements, mark the correct answer as:
- a. If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
 - b. If both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
 - c. If Assertion is true, but Reason is false.
 - d. If Assertion is false, but Reason is true.
 - e. If Assertion and Reason both are false.

Assertion: Wild animals have increased greatly in number.

Reason: These wild animals are killed by poaching.

10. In the following questions, a statement of Assertion is given by the corresponding statement of Reason. Of the statements, mark the correct answer as:
- a. If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
 - b. If both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
 - c. If Assertion is true, but Reason is false.
 - d. If Assertion is false, but Reason is true.
 - e. If Assertion and Reason both are false.

Assertion: Forests are the hotspots of biodiversity.

Reason: They provide habitat to numerous species of plants and animals.

* **Fill in the blank with correct answer.[1 Mark each]** [2]

11. Khadins are common in _____.

12. Fill in the following blanks with suitable words:

One of the main aim of management of forests and wildlife is to conserve the _____ which we have inherited.

* **Answer the questions.[1 Mark each]** [2]

13. What is meant by biological magnification?

14. Name the person who is most remembered for the protection of Khejri trees in Rajasthan.

SECTION B

* **Answer the following question. :** [10]

- 1. What is a natural resource? Name three important natural resources.
- 2. Compare the above system with the probable systems in hilly/ mountainous areas or plains or plateau regions.

3. 'Economic growth and ecological conservation should go hand in hand'? Explain why.
4. Why must we conserve our forests? List two factors responsible for causing deforestation.
5. What is a natural resource? Name three important natural resources.

SECTION C

* **Answer short answer questions. [3 Mark each]** **[12]**

1. What is an electric generator?
2. What is water harvesting? List two main advantages associated with water harvesting at the community level. Write two causes for the failure of sustained availability of groundwater.
3. Write a short note on 'Chipko Andolan' (Hug the Trees Movement).
4. Where is Fleming's right hand rule used?

SECTION D

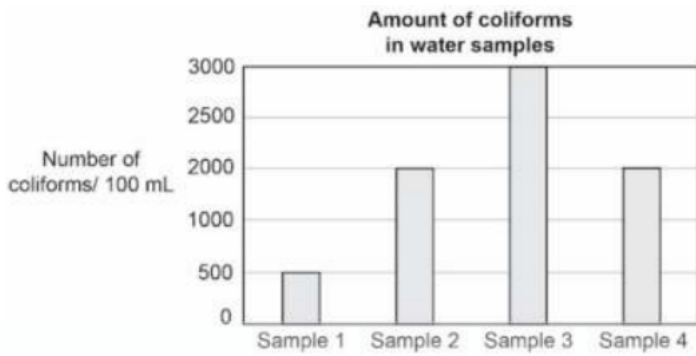
* **Long answer questions [5 Mark each]** **[10]**

1. How can you as an individual contribute or make a difference to the management of,
 - a. forests and wildlife,
 - b. water resources and,
 - c. coal and petroleum?
2. A person buys two electrical devices P and Q for lighting purposes in his house. The device P consumes only 5 units of electricity in a month but device Q consumes 15 units of electricity in a month when used for the same number of hours daily. The device Q wastes a lot of electricity by radiating energy C but P does not do so.
 - a. What type of device is (i) P, and (ii) Q?
 - b. Name one component which is present in Q but not in P.
 - c. Name the energy C.
 - d. Which device is more energy efficient: P or Q?
 - e. Which fossil fuel is most likely to be conserved if all of us switch over to devices like P?

SECTION E

* **case - based/data -based questions** **[4]**

1. Coliform bacteria are mainly present in human faeces. Drinking water should not contain more than 1 coliform per 100 mL. The graph shows the amount of coliforms found in four water samples collected for a study.



1. What can be concluded from the graph?

- A. Sample 1 is safe for drinking.
- B. Sample 3 is least contaminated with human faeces.
- C. Sample 2 and sample 4 are collected from the same water source.
- D. Sample 1 and sample 2 contain the same concentration of coliforms.

2. Bathing water should not contain more than 1000 coliforms per 100 mL.

Which water sample is safe for bathing?

- A. Sample 1
- B. Sample 2
- C. Sample 3
- D. Sample 4

3. The same study was repeated over a period of five years.

Which questions can be answered by comparing the results of the study?

Circle 'Yes' or 'No' for the correct response.

Can this question be answered by the study?	Yes or No
Is the pollution in the water sources increasing over time?	Yes/No
Which water source is the most polluted?	Yes/No
What are the chemical wastes present in the water sources?	Yes/No

4. Industrial wastes entering rivers often make the river water acidic.

How can this lead to a decrease in the population of many aquatic organisms?

5. Which of these activities should be prohibited in water bodies to control water pollution?

- A. Fishing
- B. Swimming
- C. Rowing boats
- D. Washing Clothes

The table lists the number of species of plants and animals in four forests over a time period

	Year - 1980		Year - 2000	
	Plants	Animals	Plants	Animals
Forest 1	780	205	705	180

Forest 2	1255	410	1240	400
Forest 3	1740	685	1080	395
Forest 4	685	210	650	205

6. Which forest was the most biodiverse in the year 2000?

- A. Forest 1
- B. Forest 2
- C. Forest 3
- D. Forest 4

7. Which forest had the greatest loss of biodiversity between 1980 and 2000?

- A. Forest 1
- B. Forest 2
- C. Forest 3
- D. Forest 4

8. Which of these areas has the greatest biodiversity?

- A. Desert
- B. Rainforest
- C. Grassland
- D. Mountain

9. Which of these is a bad effect of burning fossil fuels?

- A. Depletion of ozone layer
- B. Increase in global warming
- C. Increase in atmospheric nitrogen
- D. Decrease in atmospheric oxygen

10. Which of these is an effect of construction of dams?

Circle 'Yes' or 'No' for the correct response.

Is this an effect of construction of dams?	Yes or No
Loss of biodiversity	Yes/No
Displacement of people	Yes/No
Increase in the frequency of floods	Yes/No

॥ ज्ञानं एव श्रमस्य पुंजः ॥