TEST – 6

CH NO.14

CHEMISTRY **-019 (10th CLASS)** **Paper: (Objective Type)**

Time allowed: 15 Minutes **Maximum Marks: 12**

Note: You have four choices for each objective type questions as A, B, C and D. The choice which you think is correct fill that circle to front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

Q.1	QUESTIONS	(A)	(B)	(C)	(D)
1.	The formula of Ozone is	O_2	O_3	O	CO
2.	Which one of the following gases has greater retaining capacity?	O_2	N_2	CO	CO_2
3.	About 99% atmosphere's mass lies within.	30 Kilometers	35 Kilometers	15 kilometers	11 kilometers
4.	Just above the Earth's surface is.	Mesosphere	Stratosphere	Thermosphere	Troposphere
5.	Nitrogen and Oxygen gases _____ by volume of earth and atmosphere.	69%	79%	89%	9%
6.	75% atmosphere mass lies in how many kilometers.	11 km	30 km	50 km	85 km
7.	Building and Monuments lost their beauty and shine due to.	U.V. radiations	Chlorofluoro carbons	Acid Rain	IR radiations
8.	Which metal present in acid rain affect the aquatic life by clogging fish gills?	Lead	Chromium	Aluminium	Mercury
9.	The process by which atmospheric nitrogen is turned into nitrates in the soil is called.	Nitration	Fixing	Oxidation	Reduction
10.	The stratosphere layer is at height above the earth's surface.	85-120 km	50-85 km	12-50 km	0-12 km
11.	The percentage of sunlight absorbed by atmospheric gases is.	2%	10%	18%	25%
12.	Which pollutant is not found in car exhaust gases?	CO	O_3	NO_2	SO_2

	A B C D		A B C D		A B C D		A B C D		A B C D
1	Ⓐ ● Ⓒ Ⓓ	4	Ⓐ Ⓑ Ⓒ ●	7	● Ⓑ Ⓒ Ⓓ	10	Ⓐ Ⓑ ● Ⓓ	13	Ⓐ Ⓑ Ⓒ Ⓓ
2	Ⓐ Ⓑ Ⓒ ●	5	Ⓐ Ⓑ Ⓒ ●	8	Ⓐ Ⓑ ● Ⓓ	11	Ⓐ Ⓑ ● Ⓓ	14	Ⓐ Ⓑ Ⓒ Ⓓ
3	● Ⓑ Ⓒ Ⓓ	6	● Ⓑ Ⓒ Ⓓ	9	Ⓐ ● Ⓒ Ⓓ	12	Ⓐ ● Ⓒ Ⓓ	15	Ⓐ Ⓑ Ⓒ Ⓓ

نوٹ: معروضی سوال نامے کو توجہ سے پڑھیں اور ہر MCQ کی درست آپشن A,B,C,D کو پین کی سیاہی یا مار کر سے اس طرح پُر کریں کہ سیاہی دائرے سے باہر نہ نکلے۔ ایک سے زیادہ دائروں کو پُر کرنے یا کاٹ کر پُر کرنے کی صورت میں مذکورہ جواب غلط تصور ہوگا۔

TEST – 6

CH NO.14

CHEMISTRY **Paper: VI (Essay Type)**

Time Allowed: 1:45 hours **Maximum Marks: 48**

(PART – I)

2. Write short answers to any Five (5) questions: **10**

(i) Explain the phenomenon of decreasing temperature in troposphere.
(ii) Differentiate between primary and secondary air pollutants.
(iii) State the major sources of CO and CO2 emission.
(iv) How does Ozone layer form in Stratosphere.
(v) How do chlorofluorocarbons damage the ozone layer?
(vi) What are pollutants? Which factors determine the severity of a pollutant?
(vii) What is the difference between atmosphere and environment?
(viii) What do you mean by atmosphere?

3. Write short answers to any Five (5) questions: **10**

(i) Why is CO2 called a greenhouse gas?
(ii) How is acid rain produced?
(iii) Why does temperature decrease upward in troposphere.
(iv) How is ozone formed in stratosphere?
(v) What are chlorofluorocarbons?
(vi) Write two causes of ozone depletion.
(vii) Why the flood risks are increasing?
(viii) How Ozone is prepared.

4. Write short answers to any Five (5) questions: **10**

(i) What is meant by Acid Rain.
(ii) Define global warming.
(iii) Why is CO considered a health hazard?
(iv) Define Ozone hole.
(v) Write down difference layers of atmosphere around the Earth.
(vi) Write two serious effects of ozone depletion.
(vii) Write down the significance of atmospheric gases.
(viii) Ozone is beneficial for human life. Justify.

(PART – II)

Note:- Attempt any TWO questions of the following.

5. (a) How Acid Rain increases the Acidity of soil. 5
(b) Define pollutant. Differentiate between Primary and Secondary pollutant. 4

6. (a) Write down effects of global warming. 5
(b) What is green house effect? Explain 4

7. (a) Compound of Sulphur are air pollutants. Describe the sources of these compounds along with their effects. 5
(b) What are the effects of ozone layer depletion. 4

Chapter no 14

Part-I

Write short answers to questions.

(i) Explain the phenomenon of decreasing temperature in troposphere?

A. "The region of the atmosphere from the earth's surface upto 12km above is called troposphere."

It is the lowest region of the atmosphere in which we live. It contains traces of ozone. It is the earth's weather phenomenon occurs.

(ii) Differentiate between primary and secondary air pollutants?

A. **Primary pollutants:.**

The waste or exhaust products driven at because of combustion of fossil fuels and organic matter.

Secondary pollutants:.

Pollutants which are produced by various reactions of primary pollutants

(iii) State the major sources of CO and CO2 emission.

A. Emission of CO_2:-

It is consumed in the process of photosynthesis result in the removal of a oxygen while animal use O_2 during the process of respiration and give out CO_2. So, natural balance exists between these necessary gases. But human activities are disturbing this balance by using fuels. These fuels emit CO_2 by combustion.

Emission of CO:-

The source of emission CO is combustion of fossil fuel. Fossil fuels burnt in combustion engine of any type of automobile like of any industry or open are fire emit CO. Fossil fuels includes coal, petroleum and natural gas. Forest fires and burning of wood in limited oxygen emit CO.

(iv) How does Ozone layer foam in Stratosphere?

A. "The region of the atmosphere which is up to 50 km is called stratosphere" Ozone is present in this layer at a height of about 28 km. The concentration of ozone in this layer is 10 ppm (10 parts per million).

(v) **How do chlorofluorocarbons damage the ozone layer?**

A. Chlorofluoro-carbons are responsible for ozone layer depletion. Ultraviolet radiations break the C-Cl bond in $CFCl_3$.

(vi) **What are pollutants? Which factors determine the severity of a pollutants?**

A. It is a waste material that pollute air, water and soil. It is addition of any foreign material into the environment which may harm or effect living organisms directly or indirectly.

Factors:-

These are three Factors that determine the severity of a pollutant.

(i) Chemical nature of pollutants.
(ii) Concentration of pollutants.
(iii) Persistence.

(vii) **What is the difference between atmosphere and environment?**

A. Atmosphere is a blanket of gases while environment include each and everything that surround us.

(viii) **What do you mean by atmosphere?**

A. Atmosphere is the develop of difference gases around the earth.

Write short answers to any questions.

(i) **Why is CO2 called a green house gas?**

A. CO_2 acts like a glass walls of green house. It allows UV to pass through it but does not allow the IR radiations

to pass it. As concentration of gases increases less heat is lost from the surface. So, average temperature increase called green house effect.

(ii) **How is acid rain produced?**

A. When rain water mixed with SO_2 and NO_2 it forms acid rain.

(iii) **Why does temperature decrease upward in troposhere?**

A. The region of the atmosphere from the earth surface upto 12km is called troposhere.

(iv) **How is ozone formed in stratosphere?**

A. Ozone layer is formed by the reaction of CO_2 and atomic oxygen.
The concentration of ozone remains nearly constant through a series of complex reactions.

(v) **What are chlorofluorocarbons?**

A. A gas emitted from refrigerators, air conditions, plastic and paint-making factors is called chlorofluoro-carbons.

(vi) **Write two causes of ozone depletion?**

A. Chlorofluorocarbons
Hydrochlorofluorocarbons.

(vii) **Why the flood risks are increasing?**

A. Because Global warming melts glaciers and snow caps that increasing flood risk.

(viii) **How Ozone is prepared?**

A. Ozone is prepared by passing silent electrical discharge through pure, cold and dry oxygen in a specially designed apperatus called ozoniser.

Write Short answers to questions.

(i) **What is meant by Acid Rain?**

A. A rain having a pH lower than that of natural rain due to the presence of H_2SO_4 and HNO_3 is called rain acid.

(ii) **Define Global warming?**

A. Green house effect is proportional to amount of CO_2 in air. Greater is amount of CO_2 more is preparing of heat or warming. Due to increased warming this phenomenon is called Global warming.

(iii) **Why is CO considered a health hazard?**

A. CO is an air polluted. It is poisonous so it is a health hazard because it is colourless so, its presence cannot be noticed easily and readily.

(iv) **Define Ozone hole?**

A. The region in which ozone layer

depletes is called Ozone hole.

(v) **Write down difference layers of atmosphere around the Earth?**

A. The atmosphere around the earth into four Layers.

1. Troposphere
2. Stratosphere
3. Mesosphere
4. Themosphere.

(vi) **Write Two serious effects of ozone depletion?**

A (i) It causes skin cancer.

(ii) Depletion of ozone layer will increase infections disease like malaria.

(vii) **Write down the significance of atmospheric gases?**

A. The atmosphere, Earth would be lifeless. carbon dioxide ($(O)_2$ and oxygen (O_2) are the most important gases for living organism carbon dioxide is vital for use by plants

by plants in photosynthesis in which plant use CO_2 and water to convert the sun energy into food.

(viii) **Ozone is beneficial for human life Justify.**

A. The stratosphere or good ozone layer extends upward from about 6 to 30 miles and protects life on Earth from the sun harmful altraviolet.

Part - II

Attempt Long questions.

1.(a) **How Acid Rain increases the Acidity of Soil?**

A. **Acidity of soil:.**

Acidity of soil is increasing by the acid rain. Many crops and plants cannot grow property in acidic soil. It increases the toxic metals in the soil that poisons the vegetation. Acid rain also effects old trees. Growth of plants i-e

is retarted. They get dry and die.

(b) **Define polluted? Differentiate between Primary and Secondary pollutant.**

A. **Polluted:-**

It is a waste material that pollute air, water and soil. It is addition of any foreign material into the environment which may harm or affect living organism or directly or indirectly.

Primary pollutants.

The waste or exhaust products driven at because of combustion of fossil fuels and organic matter.

Secondary pollutants.

Pollutants which are produced by various reactions of primary pollutants.

2.(b) **Write down effects of global warming?**

A. Effects of Global warming.

1. Rising of temperature:-

The atmosphere temperature rises about 0.05C° every year. It is because of accumulation of CO_2 in air.

2. Weather Change.

It cause major changes in weather pattern. Extreme weather events are occuring more commonly and intensively than previously.

3. Risk of flood.

It melts glaciers and icecaps that are cause of increase flood risks and intense tropical cyclones.

4. Rise of Sea level.

Sea level is rising due to which low lying areas are liable to be submerged turning previously populated areas no longer haiabitable.

(b) What is green house effect? Explain.

A. Green house effects:-

It is the warming of the atmosphere by the trapping of longwave radiation being radiated to space. The gases most responsible for this effect are water vapour and carbon dioxide.

Carbon dioxide is not a poisonous gas. But its increasing concentration due to burning of fossil fuels in different human activities is alarming Because CO_2 in the atmosphere acts like a glass wall of green house.

So, it allows UV radiations to pass through it but it does not allow the IR radiations to pass through it. It taps some of the infarred radiations emitted by the earth. So, increased concentrations of CO_2 layer absorbs IR and prevent heat energy escaping from atmosphere. It helps to stop surface from cooling down during night. The average temperature of the surface is increasing gradually because concentration of CO_2 increasing day by day and less heat energy

is lost from the surface. This is a green house effect.

3. (a) **Compound of Sulphur are air polluted Describe the sources of these compounds along with their effects:**

A. Naturally occuring Sulphur containing compounds are cause of air pollution SO_2 and SO_3 pollute the air because of their pungent odour. These are very irritant and suffocating. Through various reactions in the atmosphere they foam sulphate aerosols. These aerosols. These cause severe respiratory particularly among older people. Sulphur dioxide is the major source of acid deposition in the atmosphere.

Sources:.

Sulphur compounds are emitted in the bacterial decay of organic matter in volcanic gases and forest fires concentration of Sulphur compounds in nature is small because of limited natural

is small But those compounds which are emitted by combustion of fossil fuels in automobiles and industrial units are of higher concentration. About 80% of the total SO_2 is released by the combustion of coal and petroleum products as shown in Figure below.

b. **What are the effects of ozone layer depletion?**

A **Effects of Ozone depletion:-**

These are following effects of Ozone depletion.

(i) **Skin Cancer:-**

Ultraviolet radiation come to all the surface of earth after ozone depletion and cause skin cancer to human beings and other animals.

(ii) **Infectious disease:-**

Decrease ozone layer will increase infections disease like malaria.

(iii) **Disruption of Food Chain:-**

Food chain is disturbed by change in life cycle of plants So,

Ozone depletion cause change in life cycle of plant.

iv. **Cause of Climatic Change:-**

It can change the wind pattern which results in climate change all over the world. Asia and Pacific will be the most affected regions facing climate include migration of people crisis.