

1. Crop Production and Management

- A. *Objective Type Questions* ☞ _____
- I. **Multiple Choice Questions (MCQs)**
 1. (c) 2. (a) 3. (a) 4. (a) 5. (b) 6. (b) 7. (c) 8. (b) 9. (c)
- II. **Matching the Columns Type Questions**
 1. (c) 2. (a) 3. (b) 4. (h) 5. (g) 6. (d) 7. (e) 8. (f)
- III. **Fill in the Blanks Type Questions**
 1. agriculture 2. cereals 3. tilling or 4. Winnowing 5. Apiculture
 6. insecticides 7. water logging 8. weedicide
- IV. **True or False Type Questions**
 1. True 2. False 3. False 4. True 5. True 6. False 7. False 8. False
- B. *Very Short Answer Type Questions* ☞ _____
1. Kharif, Rabi 2. Wheat 3. Urea, Potassium nitrate 4. Chenopodium
 5. Butachlor 6. Malathion, Zinc phosphide 7. Sprinkler method, Drip irrigation
- C. Students should attempt on their own.
- D. Students should attempt on their own.
 (H.O.T.S. Students should attempt on their own.)

2. Microorganisms

- A. *Objective Type Questions* ☞ _____
- I. **Multiple Choice Questions (MCQs)**
 1. (d) 2. (d) 3. (b) 4. (c) 5. (c)
- II. **Matching the Columns Type Questions**
 1. (b) 2. (c) 3. (a) 4. (e) 5. (d) 6. (g) 7. (f) 8. (j) 9. (h) 10. (i)
- III. **Fill in the Blanks Type Questions**
 1. fungi 2. nucleus, genetic 3. spirilla 4. Chloroplasts 5. Fungus/
Penicillium 6. cellulose 7. yeast 8. Influenza, measles 9. smaller
- IV. **True or False Type Questions**
 1. True 2. True 3. False 4. True 5. False 6. False 7. True 8. False
 9. False 10. True
- B. *Very Short Answer Type Questions* ☞ _____
1. Microscope 2. Pathogen is an organism which causes a disease in humans, animals and plants. 3. Bacteriology is the science which deals with the study of bacteria. 4. Anaerobes are the bacteria which grow


without oxygen. **5.** Heat tends to kill those bacteria which convert the milk into curd. **6.** Antibiotic is a substance which is produced by a microorganism (fungi or bacteria) and able to inhibit or kill another microorganism. It is used as a medicine in treating certain fatal diseases of human beings and animals. **7.** 0.15 to 0.2 microns. **8.** Fungi are heterotrophic (saprophytic or saprotrophic and parasitic) spore-producing organisms that lack chlorophyll and have chitin in cell wall, e.g., mushrooms, molds, yeast, etc. **9.** The breakdown of glucose and other sugars by bacteria or yeasts in absence of oxygen. They produce lactic acid, as with yogurt and cheese making bacteria, or degraded to carbon dioxide and ethyl alcohol, as with yeasts. **10.** Algae are aquatic photosynthetic eukaryotes. They may be unicellular (e.g., *Chlamydomonas*) filamentous (e.g., *Spirogyra*), colonial (e.g., *Volvox*) and thaloid (e.g., *Ulva*).

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

3. Synthetic Fibres and Plastics

A. **Objective Type Questions** 

I. **Multiple Choice Questions (MCQs)**

1. (c) 2. (d) 3. (d) 4. (d) 5. (d) 6. (a) 7. (a) 8. (b) 9. (a) 10. (b)

II. **Fill in the Blanks Type Questions**

1. Araldite 2. Melamine 3. Bakelite 4. Teflon 5. n-styrene
6. Thermosetting plastics 7. Thermoplastic 8. low absorbity of water
9. Natural, synthetic

III. **True or False Type Questions**

1. False 2. False 3. True 4. True 5. True 6. False 7. True 8. True 9. True
10. True

IV. **Matching the Columns Type Questions**

1. (j) 2. (a) 3. (i) 4. (b) 5. (d) 6. (f) 7. (c) 8. (h) 9. (e) 10. (g)

B. **Very Short Answer Type Questions** 

1. Plastic, fibre, sugar, water 2. PVC and Teflon 3. Polyvinyl chloride. It is resistant to fire and chemicals. 4. It is polyamide fibre example Nylon. 5. Terrycot and Terrywool 6. It is a long chain synthetic polymer composed of at least 85% by weight of acrylonitrile units 7. Low density polythene example pipes and High density polythene example bottle containers 8. Polystyrene 9. Bakelite, Melamine 10. It is a thermosetting plastic obtained by condensation of chloroepoxy alkane with dihydric phenol

- C. Students should attempt on their own.
 D. Students should attempt on their own.
 (H.O.T.S. Students should attempt on their own.)

4. Metals and Non-Metals

A. Objective Type Questions

I. Multiple Choice Questions (MCQs)

1. (c) 2. (a) 3. (b) 4. (a) 5. (b) 6. (b) 7. (c) 8. (b) 9. (c) 10. (d) 11. (c)
 12. (c) 13. (b) 14. (b) 15. (a)

II. Fill in the Blanks Type Questions

1. 106, 92, man made 2. oxygen and nitrogen 3. metals, non-metals
 4. Mercury 5. hydrogen 6. heat, electricity 7. Sulphur 8. Iodine
 9. corrosion 10. Diamond, graphite 11. Lubricant, in grease
 12. allotrope 13. antiseptic

III. Matching the Columns Type Questions

1. (h) 2. (i) 3. (g) 4. (e) 5. (d) 6. (c) 7. (f) 8. (a) 9. (k) 10. (j) 11. (b)

IV True or False Type Questions

1. False 2. True 3. True 4. False 5. True 6. True 7. True 8. True 9. True
 10. True

B. Very Short Answer Type Questions

1.

Metals	Non-metals
(a) Metals are generally solid with high density.	(a) Non-metals are solid or gases.
(b) Metals are malleable and ductile.	(b) They do not show these properties.

2. Metals are malleable, ductile and have high density because their atoms in solid state are closely packed. 3. Alloy is a homogeneous mixture of two or more metals or a metal with a non-metal. Example Brass (Cu60-80%, Zn40-20%), solder (Sn50-60% Pb50-40%).
 4. It has layer structure bounded together by weak forces (van der waals forces) so the layer can slip over each other. 5. Graphite has one free electron on each carbon atom, which makes it good conductor of electricity. 6. Surface of silver utensils gets tarnished due to reaction of silver with hydrogen sulphide gas present in atmosphere, which form Ag_2S black in colour. 7. It is a process of depositing thin layer of zinc over articles of iron in order to prevent rusting of iron. 8. It is a process of depositing thin layer of tin over cooking vessel made from copper.

9.	Corrosion
	<p>1. It is gradual eating away of a metal by chemical reaction and includes metals like Fe, Cu, Ag and Al.</p> <p>2. Layer of oxide film is not porous.</p>

Rusting
<p>1. When iron is exposed to moist air, it becomes covered by red-brown coating called rust.</p> <p>2. Layer of oxide is porous.</p>

10. Galvanisation, tinning, electroplating alloying, painting and anodizing

- C. Students should attempt on their own.
 D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

5. Coal and Petroleum

A. Objective Type Questions

I. Multiple Choice Questions (MCQs)

1. (d) 2. (d) 3. (b) 4. (c) 5. (d) 6. (d) 7. (a) 8. (a) 9. (d) 10. (a)

II. Fill in the Blanks Type Questions

1. inexhaustible 2. exhaustible 3. Bihar, Odisha, Madhya Pradesh, West Bengal, 4. anthracite 5. methane 6. Oil Wealth of India 7. Asphalt 8. Natural gas 9. Greenhouse effect 10. sulphur dioxide and nitrogen dioxide

III. Matching the Columns Type Questions

1. (b) 2. (a) 3. (d) 4. (e) 5. (c) 6. (f) 7. (h) 8. (g) 9. (j) 10. (i)

IV. True or False Type Questions

1. False 2. True 3. False 4. True 5. True 6. True 7. False 8. True 9. True 10. True

B. Very Short Answer Type Questions

1. Petrol, Diesel and natural gas 2. Sunlight and air 3. Compressed natural gas 4. Odisha, Bihar and West Bengal 5. Anthracite 6. Paraffin wax 7. Four 8. Sulphur dioxide (SO₂), Nitrogen dioxide (NO₂) 9. Domestic and industrial fuel 10. PCRA (Petroleum Conservation Research Association).

- C. Students should attempt on their own.
 D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

6. Combustion, Flame and Fuel

A. Objective Type Questions

I. Multiple Choice Questions (MCQs)

1. (d) 2. (a) 3. (c) 4. (d) 5. (b) 6. (a) 7. (b) 8. (d) 9. (d) 10. (a)

II. Fill in the Blanks Type Questions

1. Combustion 2. rapid combustion 3. kerosene 4. ignition temperature
5. burning 6. Berzelius 7. calorific value 8. bagasse 9. J. Fourier
10. toxic effect

III. Matching the Columns Type Questions

1. (f) 2. (a) 3. (g) 4. (b) 5. (c) 6. (e) 7. (d) 8. (i) 9. (j) 10. (h)

IV. True or False Type Questions

1. True 2. True 3. False 4. True 5. False 6. True 7. False 8. False

B. Very Short Answer Type Questions

1. The process in which a substance combines chemically with oxygen or supporter of combustion with simultaneous giving out of heat and light. 2. It is a process in which a substance combines chemically with oxygen at a temperature above its ignition temperature with the evolution of large amount of heat and light in a short time. One difference between burning and combustion is:

Combustion	Burning
It may or may not burn fully in short time.	It burns fully in a short span of time.

3. (i) Colour of flame depends upon the nature of combustible substance. (ii) The shape of flame depends upon the apparatus used for burning of combustible material. 4. The candle is a column of wax having unspun cotton thread or wick at its centre all along its height. 5. A fuel is a combustible substance which on burning gives large amount of heat which can be used economically for domestic purpose and industries while in Fuel action, the common fuels on burning form carbon dioxide which is highly exothermic, reacts and produce large amount of heat.

6.

Liquid fuels	Gaseous fuels
1. Volatile liquids which produce combustible vapours are known as liquid fuels. 2. They have lower calorific value.	1. Combustible gases or mixture of combustible gases is known as gaseous fuel. 2. They have high calorific value.

7. The calorific value of fuel is the amount of heat produced by unit mass of a fuel, when it is burnt completely. Hydrogen gas has highest (150kj/g) calorific value. **8.** The contamination of air with undesirable material like smoke, dust and harmful gases is termed as air pollution. **9.** (i) Carbon monoxide (ii) Carbon dioxide (iii) Sulphur dioxide **10.** (i) Carbon dioxide (ii) Nitrogen dioxide (iii) Methane (iv) Chlorofluorocarbons

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

7. Conservation of Plants and Animals

A. **Objective Type Questions** 

I. **Multiple Choice Questions (MCQs)**

1. (d) 2. (c) 3. (a) 4. (c) 5. (a) 6. (a) 7. (d) 8. (d) 9. (a) 10. (b) 11. (c) 12. (d)

II. **Matching the Columns Type Questions**


1. (h) 2. (g) 3. (f) 4. (c) 5. (i) 6. (x) 7. (b) 8. (a) 9. (d) 10. (e)

III. **Fill in the Blanks Type Questions**

1. Red Data 2. Tropical 3. cutting 4. reforestation 5. Wood 6. tropical rain 7. reforestation 8. National Park

IV. **True or False Type Questions**

1. True 2. True 3. True 4. False 5. False 6. False 7. True 8. False 9. True 10. False 11. False

B. **Very Short Answer Type Questions** 

1. Deforestation 2. Botanical gardens. 3. National Parks 4. Zoo 5. Corbett National Park 6. Bandipur 7. Nanda Devi 8. Haryana 9. Biodiversity

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

8. Cell-Structure and Functions

A. **Objective Type Questions** 

I. **Multiple Choice Questions (MCQs)**

1. (a) 2. (a) 3. (a) 4. (d) 5. (d) 6. (c) 7. (c) 8. (a) 9. (a) 10. (a)

II. **Fill in the Blanks Type Questions**

1. structural, functional 2. largest 3. Schleiden, Schwann 4. Mitochondrion 5. cytoplasm 6. plant 7. proteins 8. nucleus

III. Matching the Columns Type Questions

1. (c) 2. (f) 3. (d) 4. (j) 5. (e) 6. (b) 7. (h) 8. (a) 9. (i) 10. (g)

IV. True or False Type Questions

1. True 2. False 3. True 4. False 5. False 6. False 7. True 8. False
9. False 10. True 11. True

B. Very Short Answer Type Questions

1. Robert Hooks 2. *Amoeba*, *Paramecium* 3. Robert Brown 4. Ostrich egg
5. Mitochondrion 6. Nucleus 7. Cell is the structural and functional unit of all the living world. 8. Lysosomes

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

9. Reproduction in Animals

A. Objective Type Questions

I. Multiple Choice Questions (MCQs)

1. (b) 2. (c) 3. (a) 4. (b) 5. (b) 6. (c) 7. (a) 8. (c) 9. (a) 10. (d) 11. (b)
12. (b)

II. Fill in the Blanks Type Questions

1. oviduct 2. gestation period 3. ovulation 4. nine months 5. Placenta
6. umbilical cord 7. testosterone 8. Oviduct 9. *in vitro* fertilisation

III. Matching the Columns Type Questions

1. (c) 2. (f) 3. (d) 4. (e) 5. (b) 6. (a)

IV. True or False Type Questions

1. False 2. True 3. False 4. True 5. True 6. True 7. False 8. True 9. True
10. False 11. False 12. False 13. False 14. True 15. False

B. Very Short Answer Type Questions

1. Uterus 2. Pregnancy 3. Uterus 4. Union of sperm and ovum to form zygote
or fertilised egg. 5. Budding 6. Metamorphosis 7. Pupa 8. Testis 9. Sheep

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

Summative Assessment—1

1. Multiple Choice Questions (MCQs)

- a. (iii) b. (iii) c. (i) d. (iii) e. (iii)

2. Fill in the Blanks Type Questions

- a. plant b. reforestation c. yeast d. insecticide e. energy crisis

II. Matching the Columns Type Questions

1. (d) 2. (a) 3. (i) 4. (g) 5. (b) 6. (j) 7. (c) 8. (e) 9. (f) 10. (h)

III. Fill in the Blanks Type Questions

1. push, pull 2. gravitational, electrostatic, magnetic 3. force 4. pressure
5. increases 6. same 7. roughness 8. area 9. more 10. friction

IV. True or False Type Questions

1. False 2. False 3. True 4. True 5. True 6. False 7. False 8. True
9. False 10. True 11. True

B. Very Short Answer Type Questions

1. The force exerted by charged bodies 2. Newton 3. Gravitational force 4. Rolling friction 5. Yes 6. No 7. Pressure 8. Force/Area
9. Manometer 10. Reduces 11. One newton / square metre is equal to one pascal

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

12. Sound

A. Objective Type Questions

I. Multiple Choice Questions (MCQs)

1. (d) 2. (d) 3. (b) 4. (d) 5. (b)

II. Fill in the Blanks Type Questions

1. vibrating 2. sound 3. ultrasonic 4. faster 5. frequency 6. percussion musical 7. frequency 8. amplitude 9. hertz 10. decreases 11. noise

III. Matching the Columns Type Questions

1. (e) 2. (g) 3. (a) 4. (j) 5. (b) 6. (i) 7. (d) 8. (c) 9. (f) 10. (h)

IV. True or False Type Questions

1. True 2. False 3. False 4. True 5. False 6. True 7. True 8. False
9. False 10. True

B. Very Short Answer Type Questions

1. Vibrating object 2. A high pitch sound has high frequency 3. 20 Hz to 20,000 Hz 4. shrinks 5. No 6. $f = 1/T$ 7. The maximum displacement of an oscillating body from its mean position. 8. Yes; in solid 9. Loudness of sound depends on the amplitude of vibrations. Vibrations of large amplitude produces louder sound 10. Frequency

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

3. True or False Type Questions

a. False b. False c. True d. True e. False

4. Matching the Columns Type Questions

1. (d) 2. (e) 3. (a) 4. (b) 5. (c)

5. Very Short Answer Type Questions

a. Asexual b. External c. Drip irrigation d. Dengue (a viral disease)
e. Deforestation f. A process of depositing thin layer of zinc over iron articles is known as galvanisation. g. Metals present in German silver are copper, nickel and zinc. Metals in Rolled gold are copper and aluminium.
h. Polytetrafluoroethylene, eg., non-stick cookware i. Thermocol is made from polystyrene. j. carbon dioxide gas.

6. Students should attempt on their own.

7. Students should attempt on their own.

8. Students should attempt on their own.

10. Adolescence, Puberty and Endocrines

A. Objective Type Questions

I. Multiple Choice Questions (MCQs)

1. (a) 2. (a) 3. (a) 4. (b) 5. (d) 6. (b) 7. (b) 8. (a) 9. (c) 10. (b)

II. Fill in the Blanks Type Questions

1. Chemical signals, hormones 2. pituitary 3. testosterone, oestrogen
4. sexual 5. menarche, menopause; 6. male 7. Adrenaline 8. menstrual

III. True or False Type Questions

1. False 2. True 3. True 4. True 5. False 6. False 7. False 8. False
9. True 10. True 11. True 12. True 13. False 14. True 15. False

IV. Matching the Columns Type Questions

1. (b) 2. (e) 3. (f) 4. (a) 5. (c) 6. (d)

B. Very Short Answer Type Questions

1. Hormones 2. Testosterone 3. Ovulation 4. HIV 5. Cocaine 6. Two
7. One

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)



11. Force, Friction and Pressure

A. Objective Type Questions



I. Multiple Choice Questions (MCQs)

1. (c) 2. (b) 3. (b) 4. (c) 5. (b)

13. Electric Current and Its Chemical Effect

- A. Objective Type Questions** 
- I. Multiple Choice Questions (MCQs)**
1. (d) 2. (b) 3. (c) 4. (d) 5. (d) 6. (a) 7. (a)
- II. Fill in the Blanks Type Questions**
1. H_2O 2. resistance, voltage 3. electrolytic cell 4. molten 5. insulator
6. its constituent gases 7. chemical decomposition 8. cathode 9. metal
10. SO_4
- III. Matching the Columns Type Questions**
1. (h) 2. (f) 3. (a) 4. (j) 5. (i) 6. (b) 7. (c) 8. (d) 9. (e) 10. (g)
- IV. True or False Type Questions**
1. True 2. True 3. False 4. True 5. False 6. True 7. False 8. False
9. False 10. False
- B. Very Short Answer Type Questions** 
1. Electric charge 2. Heating effect and chemical effect 3. $I = V/R$
4. Electric current passing through human body 5. Ampere 6. Electrolysis
7. Resistance and voltage applied across the material 8. No 9. Yes
10. Reduces electrical resistance 11. Chemical effect of current
- C.** Students should attempt on their own.
D. Students should attempt on their own.
(*H.O.T.S. Students should attempt on their own.*)

14. Natural Phenomena— Lightning and Thunder

- A. Objective Type Questions** 
- I. Multiple Choice Questions (MCQs)**
1. (c) 2. (c) 3. (a) 4. (d) 5. (b) 6. (c) 7. (b) 8. (b)
- II. Fill in the Blanks Type Questions**
1. repel 2. charge (current) 3. insulator 4. bottom 5. negative
6. friction 7. Lightning 8. greater 9. ultraviolet 10. current
- III. Matching the Columns Type Questions**
1. (e) 2. (d) 3. (a) 4. (b) 5. (i) 6. (j) 7. (c) 8. (f) 9. (g) 10. (h)
- IV. True or False Type Questions**
1. False 2. True 3. False 4. True 5. True 6. False 7. True
- B. Very Short Answer Type Questions** 
1. Positive and negative charges 2. Monsoon 3. Lightning 4. Benjamin Franklin
5. Water cycle 6. Water droplets 7. Positively charged droplets
8. Negatively charged droplets 9. Positive in nature 10. $\sim 10^5 A$
- C.** Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

15. Natural Phenomenon— Reflection of Light

A. Objective Type Questions

I. Multiple Choice Questions (MCQs)

1. (d) 2. (c) 3. (b) 4. (a) 5. (c) 6. (b) 7. (b) 8. (b) 9. (b) 10. (b)

II. Matching the Columns Type Questions

1. (e) 2. (d) 3. (a) 4. (i) 5. (h) 6. (j) 7. (b) 8. (c) 9. (f) 10. (g)

III. Fill in the Blanks Type Questions

1. diffused 2. virtual 3. screen 4. away 5. seven 6. dispersion 7. retina
8. lateral, inversion 9. see 10. regular

IV. True or False Type Questions

1. True 2. True 3. False 4. False 5. False 6. True 7. False 8. False
9. True 10. True

B. Very Short Answer Type Questions

1. Yes, 2. The phenomenon of turning back of light after striking a smooth/polished surface in a well defined direction. 3. Travelling of light in a straight line as long as it remains in the same medium. 4. Angle of incidence = Angle of reflection ($\angle i = \angle r$). 5. The phenomenon in which light is reflected upon striking an object in all directions. 6. The point at which incident ray meets the reflecting surface. 7. The medium through which light can pass. 8. The image formed by a plane mirror is virtual, upright, as far behind the mirror as the object is in front of the mirror and laterally inverted. 9. Real images can be obtained on a viewing screen. 10. We see objects which either emit light or from which light is reflected or scattered. 11. Five

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

16. Natural Phenomena— Night Sky, Earthquakes

A. Objective Type Questions

I. Multiple Choice Questions (MCQs)

1. (c) 2. (b) 3. (b) 4. (a) 5. (b) 6. (c) 7. (b) 8. (d)

II. Fill in the Blanks Type Questions

1. universe 2. galaxy 3. constellation 4. moon 5. moon 6. galaxies
7. venus 8. hypocentre 9. secondary 10. seismology

III. Matching the Columns Type Questions

1. (e) 2. (d) 3. (a) 4. (g) 5. (b) 6. (c) 7. (j) 8. (i) 9. (f) 10. (h)

IV. True or False Type Questions

1. False 2. True 3. False 4. True 5. True 6. True 7. False 8. True
9. False 10. True

B. Very Short Answer Type Questions

1. Stars, moon and planets 2. Planet 3. The space containing heavenly bodies including the Earth itself is known as the universe 4. Saturn (Shani) 5. The distance travelled by light in one year. 6. To measure the intensity of earthquake waves 7. Seismology

C. Students should attempt on their own.

D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

17. Pollution of Air and Water

A. Objective Type Questions

I. Multiple Choice Questions (MCQs)

1. (c) 2. (b) 3. (c) 4. (c) 5. (b) 6. (c) 7. (d) 8. (a) 9. (d) 10. (d)

II. Matching the Columns Type Questions

1. (k) (Note: Lead causes plumbism.) 2. (j) 3. (b) 4. (c) 5. (d) 6. (f) 7. (g)
8. (h) 9. (a) 10. (i) 11. (l) 12. (e)

III. Fill in the Blanks Type Questions

1. air, water 2. CFCs 3. greenhouse 4. acid rains 5. lowers 6. producer
7. renewable 8. 97

IV. True or False Type Questions

1. True 2. True 3. False 4. True 5. True 6. False 7. True 8. True 9. True
10. True

B. Very Short Answer Type Questions

1. CFCs = Chlorofluorocarbons 2. UV rays or ultra-violet rays of sunlight
3. CFCs such as freon-12 or CCl_2F_2 4. Biomagnification 5. Fresh water is that water of the earth which is not salty and found in the form of ice caps or glaciers, ground water, water vapours, lakes, streams and rain water. It forms only 3% of planet's water. 6. BOD = Biological or biochemical Oxygen Demand. 7. In some eutrophic water bodies, dense population of planktonic algae develop. The water turns green within a span of a few hours. This phenomenon is called algal bloom because of the fast growth rate of algal population. 8. Accelerated eutrophication is a human activity which had speeded up the process of eutrophication of our water bodies. This term is used when freshwater lakes, ponds or

rivers are enriched with nitrates and phosphates either due to leaching of fertilizers from agriculture land or from sewage effluents (rich in detergents). **9.** Heat absorbed by water used to cool industrial power plants can lower water quality. The resulting rise in water temperature of a water body is called thermal pollution. Such a pollution lowers dissolved oxygen content of water and makes aquatic organisms more vulnerable to disease, parasites and toxic chemicals. **10.** Genetic pollution occurs when aquatic systems are disrupted by deliberate or accidental introduction of nonnative or alien species. **11.** PAN = Peroxyacetyl nitrate; a secondary air pollutant **12.** Sewage. **13.** mercury; lead, cadmium, nickel, cobalt, zinc, arsenic, chromium, etc. **14.** Sewage treatment plant or Factory. **15.** Runoff water from cornfields.

- C. Students should attempt on their own.
- D. Students should attempt on their own.

(H.O.T.S. Students should attempt on their own.)

Summative Assessment—2

1. Multiple Choice Questions (MCQs)

a. (ii) b. (iii) c. (iii) d. (iv) e. (d)

2. Fill in the Blanks Type Questions

a. One b. greenhouse c. roughness d. vibrating e. ultraviolet (UV)

3. True or False Type Questions

a. False b. False c. False d. True e. False

4. Matching the Columns Type Questions

1. (c) 2. (d) 3. (e) 4. (b) 5. (a)

5. Very Short Answer Type Questions

a. Thyroid gland b. xx c. chlorofluorocarbons d. Force exerted by electrostatically charged body e. manometer f. 20 Hz to 20,000 Hz g. $I = V / R$ h. Yes i. Saturn j. Yes

- 6. Students should attempt on their own.
- 7. Students should attempt on their own.
- 8. Students should attempt on their own.