

8th Science Unit II Assignment Answer Key

ASSIGNMENT

Class: 8 Subject: Science(Physics)

Part A

UNIT-2 Force and Pressure

I. One Mark Questions.

1. Atmospheric pressure ———— with altitude from the surface of the earth.

- a) Increases
- b) decreases
- c) first decreases then increases
- d) does not change

Answer: **a) Increases**

2. Pascal's law is used in

- a) hydraulic lift
- b) brake system
- c) pressing heavy bundles
- d) all the above

Answer: **d) all the above**

3. Why more number of wheels are set on heavy vehicles?

- a) to increase the pressure
- b) to increase the area of contact on the road
- c) to increase the speed
- d) to control the speed

Answer: **b) to increase the area of contact on the road**

4. The SI unit of atmospheric pressure is ————

- a) Newton/metre²
- b) Newton/metre
- c) Newton
- d) Joule

Answer:

5. The factor that determines whether a substance floats or sinks in a liquid

- a) upward force
- b) downward force
- c) gravitational force
- d) frictional force

Answer: **a) upward force**

Part B

II. Short Answer.

1. State Pascal's law.

Pascal's law : The pressure applied at any point of a liquid at rest, in a closed system, will be distributed equally through all regions of the liquid.

8th Science Unit II Assignment Answer Key

2. Camels can walk easily on the sand. Why?

Camels can walk easily on it because they have large padded feet, which increase the area of contact with the sandy ground

3. Water spider insect slides on the water surface easily. Give reason.

Water strider insect slides on the water surface easily due to the surface tension of water

Part C

III. Answer in detail.

a) What is friction? Write their types.

Friction : Friction is a force that slows down moving objects or prevents stationary objects from moving.

Static Friction

Kinetic Friction

b) Write advantages and disadvantages of friction.

Advantages of friction : Friction is a necessity in most of our day to day activities. It is desirable in most situations of our daily life.

1. We can hold any object in our hand due to friction.
2. We can walk on the road because of friction. The footwear and the ground help us to walk without slipping.
3. Writing easily with a pen on paper is due to friction.
4. Automobiles can move safely due to friction between the tyres and the road. Brakes can be applied due to frictional resistance on brake shoes.
5. We are able to light a matchstick, sew clothes, tie a knot or fix a nail in the wall because of friction. Though it is giving a negative effect, in most of our day to day life friction helps us to make our life easy. So, it is called as "necessary evil".

Disadvantages of friction:

1. Friction wears out the surfaces rubbing with each other, like screws and gears in machines or soles of shoes.
2. To overcome the friction an excess amount of effort has to be given to operate a machine. This leads to wastage of energy.
3. Friction produces heat, which causes physical damage to the machines.

ASSIGNMENT

Class: 8 Subject: Science(Chemistry)

Part A

UNIT- 10 Changes around us

I. Choose the correct answer.

1. What kind of changes take place in the following?

i) sugar dissolved in water

ii) strong heating of sugar

a) i) and ii) - Physical change

b) i) and ii) - Chemical change

c) i) - Physical change, ii) - Chemical change

8th Science Unit II Assignment Answer Key

d) i) – Chemical change, ii) – Physical change

Answer: **c) i) – Physical change, ii) – Chemical change**

2. In which of the following, new products are formed?

- a) Physical change
- b) Chemical change
- c) Reversible change
- d) None of the above

Answer: **b) Chemical change**

3. The chemicals in the head of a matchstick

- a) Red phosphorous
- b) White phosphorous
- c) Potassium chlorate and antimony trisulphide
- d) Silver nitrate

Answer: **c) Potassium chlorate and antimony trisulphide**

4. In which state, sodium chloride and silver nitrate undergo chemical changes

- a) solid – liquid
- b) liquid- solid
- c) solid-liquid
- d) liquid-liquid

Answer: **d) liquid-liquid**

5. The chemical reactions proceed only by the passage of electricity in

- a) Electrolysis
- b) Conductors
- c) Electroplating
- d) Electricity

Answer: **a) Electrolysis**

Part B

II. Short Answer.

1. What happens when quick lime comes into contact with water?

When quick lime comes into contact with water. It forms slaked lime

2. What is Exothermic and Endothermic Reaction?

Chemical reactions accompanying evolution of heat are called exothermic reactions

3. When a small amount of lead nitrate taken in a dry test tube and heated gently over a flame, what changes would occur?

Hear cracking sound and evolution of reddish brown coloured gas

8th Science Unit II Assignment Answer Key

Part-C

III. Answer in detail.

a) Explain the electrochemical reaction and thermo chemical reaction.

Electrochemical Reactions:

Some chemical reactions proceed only by the passage of electricity, Hence, such reactions are called as electrochemical reactions

Thermo Chemical Reactions:

Some chemical reactions can be achieved by the supply of heat only, These reactions are called thermo chemical reactions.

b) Write down the chemical changes in the following:

i) Spoilage of food and vegetables

Spoilage of food and vegetables:

Food spoilage may be defined as any change that causes food unfit for human consumption. The chemical reactions catalyzed by the enzymes result in the degradation of food quality such as development of bad taste and odour, deterioration and loss of nutrients.

Example 1 : Rotten eggs develop a bad smell due to formation of hydrogen sulphide gas.

Example 2 : Decaying of vegetables and fruits due to microbes.

ii) Rancidity of fishes and meat

Rancidity of fishes and meat:

Fishes and meat containing high levels of polyunsaturated fatty acids that undergo oxidation causes bad odour when exposed to air or light. This process is called rancidity.

iii) Apples and fruits turn brown when we cut.

- Apples and some fruits turn brown due to chemical reaction with oxygen in air. This chemical reaction is called browning.
- The cells of apples, fruits and other vegetables contain an enzyme called polyphenol oxidase or tyrosinase, when come in contact with oxygen catalyses a biochemical reaction of plants, phenolic compounds to brown pigments known as melanins

Part-D

IV. Activity

Categorize the given chemical substances and write their effects in the given table.

Methane, detergents, carbon dioxide, plastics, oil spillage, oxides of sulphur, solid wastes, dyes, herbicides, carbon monoxide, oxides of nitrogen, pesticides, chlorofluorocarbons.

Types of Pollution	Chemical Substances	Effects
Air Pollution	Carbon dioxide, Carbon monoxide, Oxides of sulfur, oxides of nitrogen, Chlorofluorocarbons, Methane Etc	Acid rain, global warming, respiratory problems, etc.

8th Science Unit II Assignment Answer Key

Water Pollution	Wastewater containing chemical substances, Eg., Dyeing industries, Detergents, Oil Spillage, etc	Decrease in the quality of water, Skin disease, etc
Land Pollution	Fertilizers like urea, various pesticides, herbicides, solid wastes, plastics, etc	Spoilage of land, cancer, respiratory diseases, etc

ASSIGNMENT

Class: 8 Subject: Science(Biology)

Part- A

UNIT- 17 Plant Kingdom

I. Choose the correct answer.

1. In how many ways does algae reproduce?

- a) 1
- b) 2
- c) 3
- d) 4

Answer: c) 3

2. The meaning of sperma is

- a) Seed
- b) Fruit
- c) Flower
- d) Sperm

Answer: d) Sperm

3. The antibiotic penicillin is obtained from

- a) Algae
- b) Fungi
- c) Pteridophytes
- d) Bryophytes

Answer: b) Fungi

4. The plants which are called as naked seed plants

- a) Angiosperms
- b) Gymnosperms
- c) Thalophyta
- d) Pteridophyta

Answer: b) Gymnosperms

5. An organism gets food from another living organism is

- a) Carnivore
- b) Decomposer
- c) Parasite

8th Science Unit II Assignment Answer Key

d) Saprophyte

Answer: c) Parasite

Part- B

II. Short Answer.

1. What do you mean by Lichens?

An organism that arises from the algae and this is in a symbiotic relationship. Lichens are formed by the 2 other plants

Algae living with fungi and both are mutually benefitted like lichens

2. Bryophytes are called as amphibians. Why?

Water is essential for bryophytes to complete their life cycle. So they are called as amphibians of the plant kingdom.

3. What is meant by Herbarium?

Herbarium is the collection of pressed dried plants pasted on a sheet and arranged according to any one of the accepted systems of classification

Part- C

III. Answer in detail.

1. Write the Economic importance of fungi.

Antibiotic :

Penicillin (*Penicillium notatum*), Neomycin, Gentamycin, Erythromycin are some antibiotics obtained from fungi, which cure variable diseases.

2. Food:

Mushroom contains rich protein and minerals. The most common edible mushroom is *Agaricus*. (Button mushroom)

3. Vitamins :

Fungus like *Ashbya gossypii* and *Erythrothecium ashbyii* are used to produce vitamin B₂ (riboflavin).

4. Alcohol:

Fungus like yeast contain enzymes invertase and zymase, which ferment the sugar molasses into alcohol

Part- D

IV. Activity

With the help of your parents, collect the medicinal plants found around your house and complete the following table.

S.No	Vernacular name	Binomial name	Part used as medicine (leaf/stem/root/flower/fruit)	Uses
1	Kuppaimeni	<i>Acalypha indica</i>	Paste obtained from Leaf	Cure burns on skin, cure ringworm
2	Vilvam	<i>Aegle marmelos</i>	unripe fruit	treat indigestion, chronic,

8th Science Unit II Assignment Answer Key

				diarrhoea and dysentery
3.	Thoothuvalai	Solanum trilobatum	leaves and fruits	cough, cold, for tuberculosis and bronchial asthma
4.	Keezhanelli	Phyllanthus amarus	entire plant	jaundice, liver disorders
5.	Sothu katrazhai	Aloe vera	Leaves	cure piles and inflammation, cures peptic ulcer