Solved Sample Paper

Class VII

Subject: Science

Max Marks: 80 **Time: 3 Hours**

GENERAL INSTRUCTIONS:

- Read the instructions carefully
- All the questions are compulsory.
- Question number 1 to 5 carries 1 mark each.
- Question number 6 is carries 2 marks each.
- Question number 7 carries 5 marks each.

1.) State whether the following statements are True or False: -

Marks: 5.0

A. When a paper strip made from tumeric is a natural indicator it turned soap solution colour to red.(T)

B. The tiny coil metal wire resent inside the bulb is called as the filament.(T)

C. The process of taking silk yarns from cocoons is called shearing. (F)

D. There is decrease in rainfall because of deforestation. (F)

E. An image formed by a convex mirror is always erect, virtual and diminished. (T)

2.) Fill in the blanks with appropriate answers: -

Marks: 5.0

A. Magnesium hydroxide is found in milk of magnesia.

B. Electric fuses are used in an electric circuit that is capable of breaking the circuit if maximum limit of current is exceeded.

C. Larvae of silk moth feeds on the mulberry leaves.

D. Removal of top layer of the soil is called soil erosion.

E. The lens used in magnifying glass is a convex lens.

3.) Multiple Choice Questions (There can be more than one answer right):

Marks: 5.0

A. The acid present in the ant sting is
   a. Formic acid
   b. Citric acid
   c. Acetic acid
   d. Hydrochloric acid

B. ..... shows the heating effect of electric current
   a. An electric heater
   b. A bar magnet
   c. A CFL
   d. MCB

C. Scouring is the term given to
   a. Cleaning of sheared wool
   b. Rearing of wool
   c. Breeding of the sheeps
   d. Shearing of the skin

D. Deforestation brings about:

   a. Increased sunlight

   b. Weed Control

   c. Soil erosion

   d. Increased grazing area

E. The distance of the object kept in front of the plane mirror is 4 cm. what will be the distance of the image formed from the mirror?
   a. 8 cm
   b. 10 cm
   c. 2 cm
   d. 4 cm

4.) Very Short Answer Questions:

Marks: 5.0

A. If the car takes 20 minutes to reach to the school which is 20 km far, then the speed of the car in km/hour is

Ans: Distance/Time
= 20/20 X 60
= 60 km/h

B. What is the function of platelets in blood?

The platelets help in the blood clot formation. The platelets adhere to damaged blood vessel walls and a series of reaction occurs inside the body which leads to a blood clot.

C. What to do understand by sewage?

Sewage is the wastewater containing solid and liquid wastes and pollutants. It is produced by humans from homes, industries, hospitals, offices and other places that use water for their various processes.

D. Define fertilization

This fusion of male and female gamete leads to the formation of zygote and this process is called as fertilization.

E. Which horizon of the soil contains a large amount of humus?

The top layer is the **A-Horizon** or often called topsoil is rich in humus. It supports the greatest amount of root activity and therefore is the most productive as it provides shelter for many living organisms.

5.) Match the items given in two columns: -

Marks: 20

A

Column A	**Column B**
Calmine solution	Acidic
Bacterium anthrax	Sorter's disease
Electromagnet	Zinc carbonate
Wood	Electric bell
Vinegar	Insulator

B

Column A	Column B
The great Indian Bustard	Increased CO_2
–10°C to 110°C	Celsius
Plane mirror	Endangered fauna
Global warming	Lateral inversion
Temperature	Laboratory thermometer

C

Column A	Column B
Bile juice	Convex lens
Stomach	Small intestine
Diverging lens	Concave lens
Villi	Fat digestion
Converging lens	Hydrochloric acid

D.

Column A	Column B
Rusting	Cuscuta
Rhizobium bacteria	Pitcher plant
Bread mould	Chemical change
Insectivorus plant	Rhizopus
Parasitic plant	Nitrogen fixation

Ans.

A.

Column A	Column B
Calmine solution	Zinc carbonate
Bacterium anthrax	Sorter's disease
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B.

Column A	Column B
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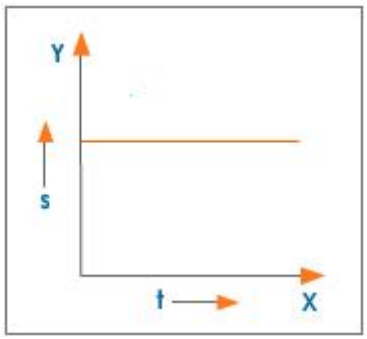
Bread mould	Rhizopus
Insectivorus plant	Pitcher plant
Parasitic plant	Cuscuta

6.) Short Answer Questions:

Marks: 20.0

A. What does the following S-t graph indicate?



Ans: As the graph indicates the distance travelled with the increasing time is zero. Hence the body is at rest.

B. A thief steals a car at 2.30pm and drives it at 60kmph. The theft is discovered at 3pm and the police sets off in another car at 75kmph when will he overtake the thief?

Ans. Let the thief is overtaken x hrs after 2.30pm
distance covered by the thief in x hrs = distance covered by the owner in x-1/2 hr
$60x = 75 (x- ½)$
$x= 5/2$ hr

Thief is overtaken at 2.30 pm + 2 ½ hr = 5 pm

C. Describe the symbiotic relationship with the help of an example.

Ans. Organisms that live in association where both get benefited from each other like the lichens are said to exhibit symbiotic relation. In the lichens the fungal partner provides with shelter, water and minerals while the algal partner containing chlorophyll prepares food by photosynthesis.

D. What is the artificial method of purifying the blood outside the body?

Dialysis is an artificial method to purify the blood. When a person's kidneys stop functioning his or her blood is purified with the help of dialysis machine. It takes out blood from the body filters it externally and then pumps inside the body.

E. Name the following

a. Tiny pores on the surface of leaves for exchange of gases.
b. An organism with tracheal system.
c. Skeletal structures surrounding the chest cavity.
d. An aerobic organism.

Ans.

a. Stomata
b. Cockroach
c. Rib cage

d. Yeast

F. Enumerate two ways to conserve water.

Ans. Water can be conserved by two methods

Drip irrigation- Drip irrigation is a technique of watering plants by making use of narrow tubings which deliver water directly at the base of the plant.

The rainwater can be used to recharge the groundwater. This is referred to as rainwater harvesting. This can be done by

1. Rooftop rainwater harvesting
2. Direct collection of rainwater into drains which gets absorbed into the ground.

G. Why do plants have respiratory system?

Ans: Plants directly absorb CO_2through stomata present in leaves and used to prepared food and release O_2.

H. What are function of flower and fruits in plants?

Ans: Flowers help in reproduction give rise to fruit and seeds.
The main function of a fruit is to protect seeds while they germinate and to help disperse seeds away from the parent plant.

I. Can respiration take place in absence of oxygen?

Ans: Yes, Respiration takes place in absence of oxygen when we are doing some strenuous activity. It is called anaerobic respiration.

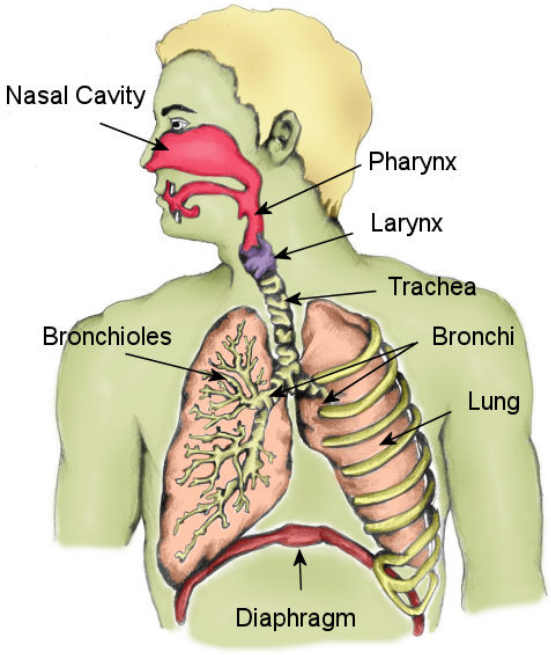
J. Why are toothpastes basic in nature?

In our mouth bacteria produce acid which dissolves enamels therefore prevent acid formation we use toothpastes. The main job of a toothbrush & toothpaste is to remove Plaque, a thin film formed by bacteria on teeth & gums

7.) Long Answer Questions: -

Marks: 20.0

A. Draw and label the human respiratory system.



Human respiratory system

B. a. What are the advantages of vegetative reproduction?
b. What is selective breeding?

Ans: a) It allows them to produce new plants quickly without any reproductive organs.
b) The plants produced by this method are exact copies of the parent plant
c) New varieties of plants having required characteristics can be developed by this method.

b. Certain breeds of sheep have thick coat of hair on their body which yields good quality wool in large quantities. As these sheep are "selectively bred" with one parent being a sheep of good breed.
The process of selecting parents for obtaining special characters in their offspring is known as selective breeding.

C. a. Why setting of curd is regarded as a chemical change?
b. Describe how crystals of copper sulphate are prepared

a. Curd is formed by adding some sour substance to milk and keeping it undisturbed for some hours. Some useful bacteria help in the setting of curd. Curd cannot be

converted into milk. It is a different substance than milk. Hence, formation of curd is a chemical change.

b. A cup full of water is taken in a beaker and a few drops of dilute sulphuric acid are added into it. The water is heated. When it starts boiling, copper sulphate powder is added slowly while stirring continuously till no more powder can be dissolved. The solution is filtered and allowed to cool down. Crystals of copper sulphate slowly form at the bottom of the beaker.

D. Enlist the adaptive features of the animals living in the polar region.

Ans. The animals like polar bear and penguins live in the polar region. These areas are extremely cold.

The adaptive features of penguins

- They have thick skin and a lot of fat to protect it from cold.
- Their bodies are streamlined and their feet have webs, making them good swimmers.
- Penguins have almond shaped glands beneath their skin above the eyes that enable them to filter excess salt from the ocean.

The adaptive features of penguins

- A polar bear has a layer of fat under its skin which helps it stay warm. It also has a thick layer of fur.
- The wide, large paws help a polar bear to walk in the snow and the thick claws are frequently used to tear away the flesh of preyed upon organisms and to navigate through the carcasses of the dead animals.
- When a polar bear swims under water it closes it nostrils so no water can get in. Their distinct swimming abilities probably source from their joined toes (webbed feet).