

District institute of Education and Training Bandipora.

Assignment Work for Class 8th Subject Science

Chapters Micro Organisms and Coal And Petroleum

1. Choose the correct Option
 - i. Which of the following is antibiotic.
 - a. Sodium bicarbonate
 - b. **Streptomycin**
 - c. Alcohol
 - d. Yeast
 - ii. The Process of Conversion of Sugar into alcohol is Called.
 - a. Nitrogen Fixation
 - b. Moulding
 - c. Fermentation
 - d. Infection
 - iii. The Major Component Of Natural Gas is .
 - i. Nitrogen
 - b. ethane
 - c. Water vapour
 - d. methane
 - iv. An Exhaustible Natural Resource Is.
 - i. Water
 - b. Air
 - c. Sunlight
 - d. **Coal**
2. Draw labelled diagram of:
 - a. Amoeba
 - b. Paramecium
3. Give Reasons for the Following:
 - a. We Should Use Fossil Fuels only when absolutely necessary.
 - b. Micro organisms are beneficial to us in many ways.
 - c. LPG is better fuel than coal.
4. VALUE BASED
 - a. What will happen if yeast powder is put in sugar solution and kept for few hours? Name the Process?
 - b. Why Smelling Agent is added to LPG?
 - c. When a disease carrying microbe enters our body, the body produces antibodies to fight the invader or chemical like antibiotic is used to kill the organism. Name the antibiotic and its source discovered by Alexander Flemming.
5. HOTS
 - a. Name the products Obtained when Coal is heated in absence of air. write any two uses.
 - b. Write some harmful causes of micro organisms.
 - c. Why Coal and Petroleum should be used judiciously? What ill effects can be caused if they are used non judiciously.
 - d. Write the Full Form Of
CNG LPG ONGC PCRA (Petroleum conservation Research Association)

Points to learn.

1. Micro organisms are tiny living organisms invisible to the naked eye and can be seen with help of microscope.
2. Microbes are of five major kinds bacteria, fungi, algae, Protozoa and viruses.
3. Micro organisms are used in the production of dairy products . Bacteria are the key player here. Micro organism like bacteria cause the decay of dead plants and animals.without such bacteria the earth would soon be covered with material from dead organisms. Bacteria also play an important part in the digestive processes of people and animals.they are used in making valuable medical, agricultural and industrial products. Yeast is used in the preparation of products like wines and beers from fruit juices or barley. Some algae like blue green algae can fix atmospheric nitrogen.these algae are used to increase the soil fertility.
4. Micro organisms are harmful in many ways. Some saprophytic bacteria cause decay of our food producing toxins in food to cause food poisoning. Bacteria cause large number of human diseases,animal disease and plant disease. Spores of many fungi reach throat,lungs and cause allergy.Algae produces toxic substances which effects the fishes in water.
5. Antibiotic is a chemical substance which is a metabolic product and has a killing effect on another living organisms.the penicillin drug was made in 1929 from penicillium notatum by Alexander Fleming.
6. If we add sugar to $\frac{1}{2}$ kg of flour along with warm water and a small amount of yeast powder to make a soft dough. After Some time we will find dough will rise as the yeast reproduces rapidly and produces carbondioxide during respiration.If we add 2-3 spoons of sugar in half filled beaker measuring 500ml and a spoon of yeast in it and waiting for few hours. We will find a different smell in it. This is smell of alcohol.The conversion of sugar into alcohol with the help of micro organisms is called Fermentation.
7. Resources that are obtained from nature are called natural resources.e.g air, water,soil. They are of two types exhaustible and inexhaustible resource. Those resources which are exhausted with continuous exploitation are exhaustible resources. Where as those which occurs in abundance and are unlikely to get exhausted with time is called inexhaustible resources.
8. Natural gas consists mainly of methane with small quantities of of ethane and propane.tthis is used in the form of CNG(**compressed Natural Gas**) and LPG (**Liquid petroleum gas**). It is used as a fuel in homes and industry.the advantage of CNG is that it is directly used for burning in our homes.LPG is oderless in natural state so the smelling agent methyl mercaptan is added to LPG to produce strong odour to check leakage.
9. The places in our country where petroleum is being produced from the oil wells are: Gujrat, Assam, Bombay High, Deltas of Krishna and Godavari rivers. Exploration for more oil is going on under the supervision of **Oil and Natural Gas corporation**.

10. The process of separating petroleum into more useful fractions by fractional distillation is known as refining. Various constituents of petroleum are petroleum gas used in homes. Petrol used in motor fuel. Kerosene used in stoves, lamps. Diesel used in electric generators. Paraffin wax used for making candles, Vaseline. Bitumen used in paints, road surfacing.
11. Coal and petroleum are fossil fuels produced from living beings. They are energy rich compounds of carbon. They are formed under the earth over a long period of time of million of years ago. They should be used judiciously as they are limited and exhaustible ones. They also pollute our environment.
12. If coal is heated in presence of air then coal burns to produce CO_2 gas. When coal is heated in absence of air coke is obtained. Coke is used as a fuel and reducing agent in smelting iron ore in a blast furnace.
13. Amoeba and Paramecium.

