2. Micro-Organisms: Friends and Foe

Very Short Answer Type Questions

1. Question

Name the instrument (or device) which is needed to see the micro-organisms.

Answer

Microscope is needed to see the micro-organisms.

2. Question

What is the name of micro-organisms which reproduce only inside the living cells of other organisms ?

Answer

Viruses are the smallest micro-organisms which reproduce only inside the living cells of other organisms.

3. Question

What are the major groups of micro-organisms?

Answer

There are five major groups of micro-organisms. These are: Bacteria, viruses, Protozoa, some fungi and Algae.

4. Question

Name any two human diseases caused by bacteria.

Answer

Typhoid and Cholera are caused by bacteria in human beings.

5. Question

Name any two human diseases caused by viruses.

Answer

The human diseases such as common cold and influenza are caused by viruses.

6. Question

Name any two human diseases caused by protozoa.

Answer

The human diseases amoebic dysentery and malaria are caused by protozoans.

7. Question

Name any two human diseases caused by fungi.

Answer

Diseases athlete's food and ring worm are caused by fungi.

8. Question

Which micro-organism is utilized in making curd from milk ?

Answer

Lactobacillus bacterium is utilized in making curd from milk.

9. Question

Name the -micro-organism which is used for the large scale production of alcohol.

Answer

Yeast is used for the large-scale production of alcohol.

10. Question

Name any two antibiotics.

Answer

Streptomycin and erythromycin are two commonly known antibiotics which are made from fungi and bacteria.

11. Question

Name an antibiotic extracted from fungus (mould). Name the fungus.

Answer

An antibiotic Penicillin was extracted from fungus (mould) by Alexander Fleming in 1929. This antibiotic was made from the fungus called penicillium.

12. Question

Name any four diseases which can be prevented by vaccination.

Answer

Several diseases including tuberculosis, smallpox, cholera and hepatitis can be prevented by vaccination.

13. Question

Name the scientist who discovered the-vaccine for 'smallpox.

Answer

Edward Jenner discovered the vaccine for smallpox in 1978.

14. Question

Name the scientist who discovered 'penicillin'.

Answer

Alexander Fleming discovered the antibiotic “Penicillin” in 1929.

15. Question

State an important function performed by blue-green algae.

Answer

Blue green algae fix the atmospheric nitrogen to enrich soil with nitrogen and hence, increase soil fertility.

16. Question

Name one 'biological nitrogen-fixer'.

Answer

Blue green algae are known as 'biological nitrogen-fixer' as they fix the atmospheric nitrogen.

17. Question

Name two common insects which act as carriers of disease-causing micro-organisms (or disease-causing microbes).

Answer

The two common insects which act as carriers of disease-causing micro-organisms (or disease-causing microbes) are housefly and mosquito.

18. Question

Name any two diseases spread by housefly.

Answer

Diseases cholera and tuberculosis spread by housefly.

19. Question

Name the insect which is the carrier of parasite of malaria.

Answer

The carrier of parasite of malaria is Female Anopheles mosquito.

20. Question

Name the insect which carries dengue virus.

Answer

Female Aedes mosquito carries dengue virus.

21. Question

Which of the two spreads dengue: mosquito or housefly ?

Answer

Female Aedes mosquito acts as a carrier of dengue virus.

22. Question

Name two diseases spread by mosquitoes.

Answer

Malaria and dengue spread by mosquitoes.

23. Question

Name the microbe which causes malaria disease.

Answer

Protozoa Plasmodium causes malaria disease.

24. Question

Name one disease which spreads by breathing in air containing micro-organisms.

Answer

Tuberculosis disease spreads by breathing in air containing micro-organisms.

25. Question

Name one disease which spreads through insect bites.

Answer

Malaria disease spreads through insect bites.

26. Question

Name one disease which spreads through infected food or water.

Answer

Cholera disease spreads through infected food or water.

27. Question

Name the causative micro-organisms of the following animal diseases:

(a) Foot and mouth disease

(b) Anthrax

Answer

(a) Foot and mouth disease is caused by a virus.

(b) Anthrax disease is caused by a bacterium.

28. Question

Name two food materials which are preserved by sun-drying method in our homes.

Answer

Vegetables like methi leaves and spinach are preserved by sun-drying method in our homes.

29. Question

Name two food materials which are preserved by using common salt.

Answer

Meat and fish are preserved by using common salt.

30. Question

Name two food materials which can be preserved by using sugar.

Answer

Jams and jellies are preserved by using sugar.

31. Question

Name two food materials which are usually preserved by deep freezing.

Answer

Preservation by deep freezing means preservation of food material in the extreme cold. Low temperature inhibits the growth of micro-organisms completely. Food materials such meat and fish are usually preserved by deep freezing.

32. Question

Name some of the preservatives which are used in the preservation of fruits as jams arid jellies.

Answer

Sodium benzoate and sodium meta bisulphite are common preservatives which are used in the preservation of fruits as jams and jellies.

33. Question

Name some of the preservatives which are used in the preservation of fruits and vegetables as pickles.

Answer

Salt, oil and vinegar are some of the preservatives which are used in the preservation of fruits and vegetables as pickles.

34. Question

Name two food materials which can be preserved by using oil or vinegar.

Answer

Fish and meat are often preserved by using oil or vinegar.

35. Question

Name any two special chemicals which are used as food preservatives.

Answer

Sodium benzoate and sodium metabisulphite are common preservatives.

36. Question

Name the micro-organisms which can fix atmospheric nitrogen in the soil.

Answer

Certain bacteria and blue green algae present in the soil fix atmospheric nitrogen and convert it into compounds of nitrogen.

37. Question

What type of plants can fix nitrogen gas of the air into compounds of nitrogen?

Answer

Leguminous plants can fix atmospheric nitrogen into nitrogen compounds.

38. Question

Name the micro-organisms present in the soil and in the root nodules of leguminous plants which can fix atmospheric nitrogen.

Answer

Some bacteria and blue green algae present in the soil and rhizobium present in the root nodules of leguminous plants can fix atmospheric nitrogen.

39. Question

Name two leguminous plants which can fix nitrogen.

Answer

Leguminous plants such as beans and peas can fix nitrogen.

40. Question

Fill in the following blanks with suitable words:

(a) Alcohol is produced with the help of .....

(b)Blue-green algae fix.....directly from air to enhance fertility of soil.

(c) Micro-organisms can be seen with help of a.....

(d) Cholera is caused by.....

(e) Common salt has been used to preserve..... and ..... for ages.

(f) The food material which is preserved by pasteurization is .....

(g) As a result of nitrogen cycle, the percentage of nitrogen in the atmosphere remains more or less……

Answer

(a) yeast (b) nitrogen (c) microscope (d) bacteria

(e) meat; fish (f) milk (g) constant

Short Answer Type Questions

41. Question

How do viruses differ from other micro-organisms such as bacteria?

Answer

Viruses differ from other micro-organisms because they are too much smaller in comparison to other micro-organisms. They do not show most of the characteristics of the living organisms like respiration. They just reproduce. They, however, reproduce only inside the cells

of the host organism, which may be a bacterium, plant or animal. Hence, viruses differ from other micro-organisms.

42. Question

What are micro-organisms? Give any two examples of micro-organisms.

Answer

The organisms which are too small to be seen by the naked eyes and can be seen only though a microscope are called micro-organisms or microbes. Bacteria and viruses are examples of micro-organisms.

43. Question

Can micro-organisms be seen with the naked eye? If not, how can they be seen?

Answer

Micro-organisms are too much smaller that they cannot be seen with naked eye. They can be seen with a magnifying glass called microscope.

44 A. Question

How do houseflies carry disease-causing microbes-(or pathogens)?

Answer

The houseflies feed on garbage, animal excreta and dead organic matter. When the housefly sits on garbage and animal excreta for feeding, then the millions of disease-causing micro-organisms present in them sticking to the body of housefly. And when this housefly sits on uncovered food, they may transfer the pathogens and food gets contaminated. When this contaminated food is consumed by a person, pathogens enter into his body and causes various diseases.

44 B. Question

State any two ways of preventing diseases spread by houseflies.

Answer

The spreading of diseases by houseflies can be prevented by following ways:

(i) Food should always be kept covered.

(ii) Proper sanitation should be maintained in the kitchen.

44 A. Question

How do mosquitoes carry disease-causing micro-organisms and spread diseases?

Answer

Mosquito acts a carrier of disease causing micro-organism and spreads diseases from one person to another. They carry disease-causing micro-organisms (microbes) inside its body. Female Anopheles mosquito is a carrier

of malarial parasite. When it bits a person suffering from malaria, it sucks the blood of that person which contains the malarial parasite microbes. When this infected mosquito bites a healthy person, it transfers the microbes into his blood stream, hence the healthy person also gets malarial disease.

45 B. Question

Mention any three ways of preventing diseases spread by mosquitoes.

Answer

The spreading of diseases by mosquitoes can be prevented by following ways:

(i) We should not let water collect anywhere in the neighborhood.

(ii) We should keep our surrounding clean and dry.

(iii) Mosquito repellant creams should be applied on the exposed parts of the body.

46 A. Question

What is meant by fermentation? Name the scientist who discovered fermentation.

Answer

The process of conversation of sugar into alcohol is known as fermentation. Louis Pasteur discovered fermentation in 1857.

46 B. Question

Which micro-organism converts sugar into alcohol during fermentation?

Answer

Yeast converts sugar into alcohol during fermentation. Yeast is used for commercial production of alcohol and wine.

47 A. Question

How do micro-organisms help in increasing soil fertility?

Answer

Some bacteria like rhizobium and blue green algae like Nostoc and Anabaena present in the soil are able to fix nitrogen gas from the atmosphere to enrich soil with nitrogen and increase its fertility. These micro-organisms are commonly called biological nitrogen fixers.

47 B. Question

How do micro-organisms help in cleaning the environment?

Answer

Some micro-organisms decompose the organic matter of dead plants and animals and convert them into simple substances which mix up with the soil. These substances are again used by other plants and animals. Thus, micro-organisms decompose the harmful and smelly dead remains of plants and animals into harmless materials and thereby clean up the environment.

48. Question

What are antibiotics? What precautions must be taken while taking antibiotics?

Answer

Medicines which kill or stop the growth of the disease-causing micro-organisms are called antibiotics. Streptomycin, tetracycline and erythromycin are some of the commonly known antibiotics which are made from fungi and bacteria.

Some of the precautions should be taken while taking antibiotics which are as follows:

● Antibiotics should be taken only on the advice of a qualified doctor.

● A person must finish the full course of antibiotics prescribed by the doctor.

● Antibiotics should not be taken unnecessarily.

49. Question

Why are antibiotics not effective against 'common cold' and 'flu'?

Answer

Antibiotics are not effective against 'common cold' and 'flu' as these are caused by viruses. And the viruses do not have cells but live in the cells of living beings. And the working mechanism of the antibiotics is to break the cell wall and attack on the bacteria.

50. Question

What is the full form of HIV? Name the disease caused by HIV.

Answer

The full form of HIV is Human Immunodeficiency Virus. HIV causes AIDS disease.

51. Question

Describe how, curd is made from milk. Name the bacterium which converts milk into curd:

Answer

Milk is turned into curd by bacteria. Milk contains many microorganisms. Of these, the bacterium Lactobacillus promotes the formation of curd.

When a small amount of pre-made curd is added into warm milk, then lactobacillus bacterium present in curd multiplies in milk and converts it into curd. During this process, lactobacillus bacterium acts on lactose sugar present in milk and converts it into lactic acid. This lactic acid then converts milk into curd.

51. Question

Name the micro-organism used in bread-making which makes the bread-dough rise. How does it make the dough rise?

Answer

Yeast is used in baking industry for making bread. It increase the volume of dough. When yeast is mixed in dough for making bread, the yeast reproduces rapidly and produces carbon dioxide during respiration. Bubbles of the gas fill the dough and increase its volume. This makes the dough rise. This is the basis of the use of yeast in the baking industry for making breads, pastries and cakes.

53. Question

What is food poisoning? How is food poisoning caused?

Answer

Microorganisms such bacteria and fungi that grow on our food items sometimes produce toxic substances. These make the food unfit for consumption. Consuming such food can cause a serious illness called food poisoning.

Food hygiene is essential for preventing food poisoning.

54 A. Question

What is meant by food preservation? Name any five methods of preserving food.

Answer

Food preservation: Processing of food to prevent their spoilage and to retain their nutritive value for period is called food preservation.

Food can be preserved using following methods:

(1) Preservation by Salt

(2) Preservation by Sugar

(3) Preservation by oil and vinegar

(4) Heat and cold treatment

(5) Storage and packing

54 B. Question

How do you preserve cooked food at home?

Answer

We preserve cooked food in the refrigerator at home. Low temperature inhibits the growth of micro-organisms. When cooked food is kept in a cold place, then the food does not get spoiled easily.

55 A. Question

Why should we not let water collect anywhere in the neighbourhood?

Answer

All mosquitoes breed in water . Hence, one should not let water collect

anywhere, in coolers, tyres, flower pot etc.

55 B. Question

Name one animal disease each caused: (i) by virus (ii) by bacteria (iii) by fungus.

Answer

(i) Yellow vein mosaic of bhindi (Okra) (ii) Citrus canker (iii) Rust of wheat

56. Question

Where do Rhizobium bacteria live? What is their function?

Answer

Rhizobium bacterium is found in the soil. It lives in the root nodules of leguminous plants such as beans and peas, with which it has a symbiotic relationship. It is involved in the fixation

of nitrogen in leguminous plants (pulses).

57. Question

Name any two

(a) bacteria

(b) viruses

(c) protozoa

(d) algae, and

(e) fungi.

Answer

(a) Bacteria – (I) Lactobacillus bacteria (II) Rhizobium bacteria

(b) Viruses – (I) HIV (II) Tobacco Mosaic virus (TMV)

(c) Protozoa – (I) Amoeba (II) Paramecium

(d) Algae – (I) Spirogyra (II) Chlamydomonas

(e) Fungi – (I) Penicillium (II) Aspergillus

58. Question

State the beneficial effects (or usefulness) of micro-organisms in our lives.

Answer

Microorganisms are used for various purposes such as:

● They are used in the preparation of curd, bread and cake.

● They are used in the preparation of alcohol, wine and acetic acid (vinegar).

● They are also used in cleaning up of the environment.

● In agriculture, they are used to increase soil fertility by fixing nitrogen.

● The antibiotics are manufactured by growing specific microorganisms and are used to cure a variety of diseases. Penicillin is an antibiotic made from Penicillium.

● Certain microbes are also used in the biological treatment of sewage and industrial effluents.

● Yeast is used in making idlis, bhaturas, bread, pastries and cakes.

59. Question

Describe the method of pasteurization for the preservation of milk.

Answer

The process of pasteurization for the preservation of milk is discovered by Louis Pasteur. In this process, milk is heated to about 70^0C for 15 to 30 seconds to kill bacteria. Next it is chilled very fast to prevent bacteria from growing. It is finally stored at low temperature. This Pasteurized milk can be consumed without boiling as it is free from harmful microbes.

60. Question

Name one plant disease each caused:

(a) by fungi

(b) by virus

(c) by bacteria

Answer

(a) The plant disease, Rust of wheat is caused by fungi.

(b) Yellow vein Virus Insect mosaic of bhindi (Okra), a plant disease, is caused by virus.

(c) Citrus canker is caused by bacteria.

61. Question

Which disease is spread by:

(a) female Anopheles mosquito?

(b female Aedes mosquito?

Answer

(a) female Anopheles mosquito carries the parasite of malaria.

(b) Female Aedes mosquito acts as carrier of dengue virus.

62. Question

Name two fruits which are preserved:

(a) in the form of pickles

(b) in the form of jams.

Answer

(a) The fruits which are preserved in the form of pickles by using oil and vinegar as preservative are raw mango and lemon.

(b) The fruits which are preserved in the form of jams by using sugar as preservative are mango and orange.

63. Question

What is the mode of transmission of the following diseases?

(a) Rust of wheat

(b) Citrus canker

(c) Yellow vein mosaic of bhindi (Okra)

Answer

Plant Diseases	Mode of transmission
(a) Rust of wheat	Air, Seeds
(b) Citrus canker	Air
(c) Yellow vein mosaic of bhindi (Okra)	Insect

64. Question

Name any two animal diseases and two plant diseases caused by micro-organisms.

Answer

The following diseases are caused by the micro-organisms:

Animal Diseases	Plant Diseases
Anthrax	Citrus Canker
Foot and mouth	Rust of Vein

65. Question

State the causative micro-organisms and modes of transmission of the following human diseases :

(i) Tuberculosis

(ii) Measles

(iii) Chickenpox

(iv) Polio

(v) Cholera

(vi) Typhoid

(vii) Hepatitis B

(viii) Malaria

(ix) Dengue

Answer

Diseases	**Causative micro-organisms**	**Modes of transmission**
(i) Tuberculosis	Bacteria	Air
(ii) Measles	Virus	Air
(iii) Chickenpox	Virus	Air/Contact
(iv) Polio	Virus	Air/Water
(v) Cholera	Bacteria	Water/Food
(vi) Typhoid	Bacteria	Water
(vii) Hepatitis B	Virus	Water
(viii) Malaria	Protozoa	Mosquito
(ix) Dengue	Protozoa	Mosquito

Long Answer Type Questions

66 A. Question

What is meant by communicable diseases? Name any two communicable diseases.

Answer

Microbial diseases that can spread from an infected person to a healthy person through air, water, food or physical contact are called communicable diseases. Cholera and tuberculosis are examples of communicable diseases.

66 B. Question

What are the various ways in which communicable diseases can occur and spread?

Answer

The communicable diseases can occur and spread in the following ways:

- Through air we breathe
- Through water we drink
- Through food we eat, and
- Through carriers such as mosquito.

67 A. Question

Name any five human diseases caused by micro-organisms. Also name the causative micro-organisms and mode of transmission for each of these diseases.

Answer

Diseases	Causative micro-organisms	Modes of transmission
(i) Tuberculosis	Bacteria	Air
(ii) Chickenpox	Virus	Air/Contact
(iii) Polio	Virus	Air/Water
(iv) Cholera	Bacteria	Water/Food
(v) Malaria	Protozoa	Mosquito

67 B. Question

State the various ways of preventing the occurrence and spreading of communicable diseases.

Answer

There are various ways of preventing the occurrence and spreading of communicable diseases. These are as follows:

● Maintain personal hygiene and good sanitary habits.

● Drink boiled drinking water.

● Spray insecticides and control breeding of mosquitoes by not allowing water to collect in the surroundings.

● Keep the infected person separated from others & advice him/ her to keep a handkerchief on the nose and mouth while sneezing.

● Timely vaccination against diseases should also be taken.

● Food must be kept covered.

68 A. Question

What is a vaccine? How does a vaccine work?

Answer

A vaccine is a special kind of preparation which provides immunity against a particular disease. Vaccine consists dead and weakened microbes which are harmless and do not cause any disease. Vaccine works as follows:

● When the vaccine containing dead or weakened microbes is introduced into the body of a healthy person, the body fights and kills the microbes by producing some substance called antibodies.

● Some of the antibodies remain in the body for a long time and protect it from any future attack of disease germs. Thus, a vaccine develops the immunity from a disease.

68 B. Question

Why are children given vaccination ?

Answer

Vaccination is the process of giving a vaccine orally or by injection which gives protection against a particular disease. Vaccination protect the children from number of diseases. Several diseases, including cholera, tuberculosis, smallpox and hepatitis can be prevented by vaccination.

Since the immune system of children is not strong and they are more likely to catch any disease very easily, so all the children should be vaccinated at the proper ages to provide them immunity from certain diseases.

69. Question

What is meant by 'nitrogen fixation' ? State two ways in which nitrogen gas of the atmosphere can be 'fixed' in nature to get nitrogen compounds in the soil.

Answer

The process of converting atmospheric nitrogen into compounds of nitrogen is called nitrogen fixation. The two ways in which in which nitrogen gas of the atmosphere can be 'fixed' in nature to get nitrogen compounds in the soil are:

(i) Nitrogen fixation by lightning: Lightning also helps in fixing atmospheric nitrogen into the soil. The temperature and pressure during lightning convert atmospheric nitrogen into oxides of nitrogen. These nitrogen compounds combine with rainwater to form nitric and nitrous acid which mix with the soil.

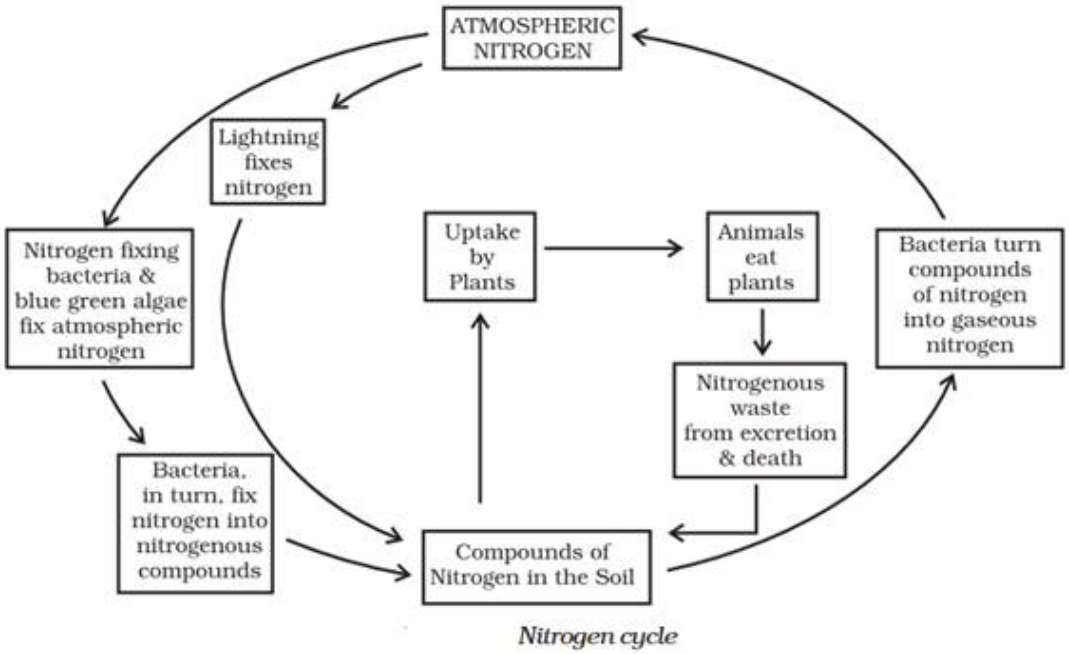
(ii) Nitrogen fixation by certain bacteria and blue-green algae: Certain bacteria and blue-green algae present in the soil fix nitrogen from the atmosphere and convert it into compounds of nitrogen.

70. Question

Draw a neat, labelled diagram of nitrogen cycle in nature. Which natural phenomenon occurring in the sky is responsible for nitrogen fixation?

Answer

A neat, labelled diagram of the nitrogen cycle in nature is shown below:



Nitrogen cycle

Lightning is a natural phenomenon which occurs in the sky and responsible for nitrogen fixation. The temperature and pressure during lightning convert atmospheric nitrogen into oxides of nitrogen. These nitrogen compounds combine with rain water to form nitric and nitrous acid which mix with the soil. These acids are utilized by various organisms.

Multiple Choice Questions (MCQs)

71. Question

The bread dough rises because of:

A. heat

B. grinding

C. growth of yeast cells

D. Kneading

Answer

Yeast is used in baking industry for making bread. It increases the volume of dough.

When yeast is mixed in dough for making bread, the yeast reproduces rapidly and produces carbon dioxide during respiration. Bubbles of the gas fill the dough and increase its volume.

72. Question

Yeast is used in the production of:

A. sugar

B. alcohol

C. hydrochloric acid

D. Oxygen

Answer

Yeast is used for commercial production of alcohol and wine.

73. Question

The process of conversion of sugar into alcohol is called:

A. nitrogen fixation

B. moulding

C. fermentation

D. infection

Answer

The process of conversion of sugar into alcohol is known as fermentation. Louis Pasteur Discovered fermentation in 1857.

74. Question

Which of the following is an antibiotic?

A. sodium bicarbonate

B. streptomycein

C. alcohol

D. yeast

Answer

Streptomycin, tetracycline and erythromycin are some of the commonly known antibiotics which are made from fungi and bacteria.

75. Question

The most common carrier of communicable diseases is:

A. ant

B. housefly

C. dragonfly

D. spider

Answer

Housefly is most common carrier of communicable diseases. The houseflies feed on garbage, animal excreta and dead organic matter. Diseases cholera and tuberculosis spread by housefly.

76. Question

The carrier of malaria causing protozoan is:

A. female anopheles

B. cockroach

C. housefly

D. female aedes mosquito

Answer

The carrier of malaria causing protozoan called plasmodium is female anopheles mosquito.

77. Question

The vaccine for smallpox was discovered by:

A. Alexander Fleming

B. Edward jenner

C. Louis Pasteur

D. Rober coch

Answer

Edward Jenner discovered the vaccine for smallpox in 1978.

78. Question

Alcohol can be converted into vinegar by the action of micro-organisms called:

A. viruses

B. yeast

C. protozoa

D. bacteria

Answer

The dilute solution of acetic acid is called vinegar. Alcohol can be converted into vinegar by the action of micro-organisms called bacteria. In this process, first alcohol is produce by using yeast. The acetobacter bacteria is then added to alcohol. Acetobacter bacteria convert alcohol into acetic acid (or vinegar).

79. Question

The first antibiotic called penicillin was extracted from:

A. a bacterium

B. a protozoan

C. a fungus

D. an alga

Answer

An antibiotic Penicillin was extracted from fungus (mould) by Alexander Fleming in 1929. This antibiotic was made from the fungus called penicillium.

80. Question

Which of the following is not a communicable disease?

A. cholera

B. cancer

C. chickenpox

D. malaria

Answer

Cholera, chickenpox and malaria are communicable disease while cancer is not a communicable disease.

81. Question

Which of the following increases the fertility of soil

(A) Lactobacillus bacteria

(B) Rhizobium bacteria

(C) Spirogyra algae

(D) Blue-green algae

A. A and B

B. B and C

C. A and D

D. B and D

Answer

B and D as these two organisms are able to **fix** nitrogen gas from atmosphere to enrich soil with nitrogen compounds hence increasing fertility of soil

82. Question

Which of the following cannot be used as a food preservative?

A. sodium metabisulphate

B. sodium hydroxide

C. sodium benzoate

D. citric acid

Answer

sodium metabisulphate, sodium benzoate and citric acid are used as a food preservative whereas sodium hydroxide is not used as food preservative.

83. Question

Which of the following disease is not caused by bacteria?

A. cholera

B. typhoid

C. tuberculosis

D. measles

Answer

Cholera, typhoid and tuberculosis are caused by bacteria whereas measles is caused by a virus.

84. Question

The micro-organisms which can reproduce and multiply only cells of other organisms are:

A. protozoa

B. fungi

C. bacteria

D. viruses

Answer

Viruses are too much smaller in comparison to other micro-organisms. They do not show most of the characteristics of the living organisms like respiration. They just reproduce. They, however, reproduce only inside the cells of the host organism, which may be a bacterium, plant or animal.

85. Question

The dengue disease spread by Aedes mosquito is caused by:

A. bacteria

B. virus

C. protozoan

D. fungus

Answer

Dengue disease is caused by a virus. Female Aedes mosquito acts as carrier of dengue virus.

86. Question

Which of the following disease is not caused by viruses?

A. measles

B. smallpox

C. cholera

D. polio

Answer

Measles, smallpox and polio are caused by viruses while cholera is caused by a bacterium.

87. Question

The micro-organism which is capable of converting sugar into alcohol and carbon dioxide is:

A. bacterium

B. fungus

C. alga

D. protozoan

Answer

Yeast, a fungus is capable of converting sugar into alcohol and carbon dioxide.

88. Question

Which of the following is not a use of micro-organisms?

A. preparation of medicines (or drugs)

B. preparation of food by photosynthesis

C. recycling of materials in nature

D. increasing the fertility of soil

Answer

Some of the micro-organisms are used to preparation of medicines. Some of micro-organisms are used recycling of materials in nature and increasing the fertility of soil. The synthesis of food by photosynthesis takes place in leaves with the help of inorganic materi like carbon-dioxide and water in the presence of sunlight and chlorophyll.

89. Question

The malaria disease is caused by a:

A. virus

B. protozoan

C. bacterium

D. fungus

Answer

The malaria disease is caused by a protozoan called plasmodium.

90. Question

The parasite called Plasmodium causes a disease known as:

A. measles

B. polio

C. malaria

D. dengue

Answer

The parasite called Plasmodium causes a disease known as malaria. Female Anopheles mosquito carries the parasite of malaria.

Questions Based on High Order Thinking Skills (HOTS)

91. Question

After consuming a dish of mutton, a person complained of nausea, vomiting, diarrhoea, and pain in the abdomen.

(a) what type if disease is he suffering from?

(b) What causes this disease?

Answer

(a) He is suffering from food poisoning.

(b) Micro-organisms like bacteria and fungi present in the spoilt dish of mutton causes the disease, food poisoning.

92. Question

Match the micro-organism in column A with their action on Column B:

Column A

(i) Bacteria

(ii) rhizobium

(iii) Lactobacillus

(iv) Yeast

(v) A protozoan

(vi) A virus

(vii) penicillium

Column B

(a) Fixing nitrogen

(b) setting of curd

(c) Baking of Bread

(d) Causing malaria

(e) Causing cholera

(f) Causing AIDS

(g)Producing antibiotics

Answer

(i) e; (ii) a ; (iii) b; (iv) c ; (v) d ; (vi) f ; (vii) g

93. Question

To which category of micro-organisms do the following belong?

Amoeba, Lactobacillus, Chlamydomonas, Penicillium, Yeast, HIV

Answer

Amoeba – Protozoa ; Lactobacillus - Bacteria ; Chlamydomonas - Algae;

Penicillium - Fungi ; Yeast – Fungi ; HIV - Virus

94. Question

Name the causative micro-organisms do the following belong?

(a) Rust of wheat

(b) Citrus canker

(c) Yellow vein mosaic of bindi (Okra)

Answer

(a) Rust of wheat – Fungi

(b) Citrus canker – Bacteria

(c) Yellow vein mosaic of bindi (Okra) - Virus

95. Question

The mosquito P is a carrier of virus and spreads a disease Q. Another mosquito R is the carrier of protozoan S and spreads s disease called T.

(a) Name (i) mosquito P, and (ii) disease Q.

(b) Name (i) mosquito R (ii) protozoan S, and (iii) disease T.

(c) What is the sex of mosquito P?

(d) What is the sex of mosquito r?

Answer

(a) (i) Female Aedes mosquito (ii) Dengue

(b) (i) Female Anopheles mosquito (ii) Plasmodium (iii) Malaria

(c) Female (d) Female