

QUESTION BANK

MCQ

Q1. The process in which sugar in the food is transformed into alcohol and carbon dioxide by using microorganisms is known as

- | | | | |
|-------------------|--------------------------|----------------|--------------------------|
| a) Transformation | ☐ | b) Beverage | ☐ |
| c) Fermentation | ☐ | d) Respiration | ☐ |

ans: Fermentation

Q2. Algae are:

- | | | | |
|-----------------|--------------------------|--------------------|--------------------------|
| a) Heterotrophs | ☐ | b) Carnivores | ☐ |
| c) Hervibores | ☐ | d) Photoautotrophs | ☐ |

ans: Photoautotrophs

Q3. Substance used to produce immunity against diseases in the living body is called:

- | | | | |
|-------------|--------------------------|------------|--------------------------|
| a) Immune | ☐ | b) Vaccine | ☐ |
| c) Antibody | ☐ | d) Antigen | ☐ |

ans: Vaccine

Q4. Carrier of malaria-causing protozoan is

- | | | | |
|-------------------------------------|--------------------------|--------------|--------------------------|
| a) Female <i>anopheles</i> mosquito | ☐ | b) Cockroach | ☐ |
| c) Housefly | ☐ | d) Butterfly | ☐ |

ans: Female *anopheles* mosquito

Q5. The microorganism which helps the formation of curd.

- | | | | |
|-------------------------|--------------------------|-------------------------|--------------------------|
| a) <i>Rhizobium</i> | ☐ | b) <i>Anabaena</i> | ☐ |
| c) <i>Chloromycetin</i> | ☐ | d) <i>Lactobacillus</i> | ☐ |

Q6. Microorganism which reproduce only inside the host cell.

- | | | | |
|-------------|--------------------------|----------|--------------------------|
| a) Bacteria | ☐ | b) Virus | ☐ |
| c) Algae | ☐ | d) Fungi | ☐ |

ans: Virus

Q7. Which of these does not prevent growth of bacteria?

- a) Oil ☐
- b) Sugar ☐
- c) Water ☐
- d) Salt ☐

ans: Water

Q8. Alcohol is produced with the help of

- a) Sodium chloride ☐ b) Yeast ☐
- c) Nitrogen ☐ d) Carbon dioxide ☐

ans: Yeast

Q9. *Spirogyra* is

- a) An algae ☐ b) A fungi ☐
- c) A bacteria ☐ d) A protozoa ☐

ans: An algae

Q10. *Bacillus* are _____ shaped bacteria:

- a) Rod ☐ b) Spiral ☐
- c) Spherical ☐ d) Comma ☐

ans: Rod

VERY SHORT ANSWER QUESTION

Q1Puzzle:

Find out who am I.

Insecticides are sprayed to kill me. _____.

Ans: Insects

I can transfer microbes from one person to another. _____.

Ans: Carrier

I am present in places where dirty water is present. _____.

Ans: Microbes

The person whom I bite suffers from high fever and shivering. _____.

Ans: Female *anopheles* mosquito

I can only survive within a living body . _____.

Ans: Virus

Q2. Fill in the blanks:

a) _____ bacterium present in curd which promotes the formation of curd.

Ans: *Lactobacillus*

b) _____ Is used for production of acetic acid from alcohol.

Ans: *Yeast*

c) The fungus which grows on bread is called _____.

Ans: Bread mould

d) Antibiotics _____ the growth of the disease causing microorganism

Ans: Kill or Stop

e) Algae such as _____ and _____ fix nitrogen using oxygen from the atmosphere.

Ans: *Anabaena and Nostoc*

f) The female _____ mosquito carries the malarial parasite.

Ans: *anopheles*

g) Jam and squashes are preserved by _____.

Ans: Sugar

h) _____ or _____ temperature inhibits the growth of microbes.

Ans: Low or high

i) Organisms that cannot be seen with naked eyes _____.

Ans: Microorganism

j) A micro-organisms that only reproduces inside the host organisms _____.

Ans: Virus

k) An example single celled micro-organisms _____.

Ans: Amoeba

l) An example multi-cellular micro-organisms _____.

Ans: Fungi

Q3. Name four major groups of microorganisms.

Ans. Four major groups of microorganisms are bacteria, fungi, protozoa and algae.

Q4. Name five diseases caused by virus.

Ans. Five diseases caused by virus are measles, chickenpox, polio, hepatitis A and influenza (flu)

Q5. Name two diseases caused by protozoa.

Ans. Dysentery and malaria are two diseases caused by protozoa.

Q6. Name any two algae.

Ans. Two algae are Chlamydomonas and Spirogyra.

Q7. Give four examples of fungi.

Ans. Four examples of fungi are bread mould, penicillium, aspergillus and yeast.

Q8. Mention the names of any two protozoa.

Ans. Two protozoa are amoeba and paramecium.

Q9. Give examples of unicellular and multicellular microbes.

Ans. Bacteria, some algae and protozoa are some unicellular microbes. Algae and fungi are multicellular microbes.

Q10. Name the microorganism which helps the formation of curd.

Ans. Lactobacillus promotes the formation of curd.

Q11. Mention any three food items which are prepared using yeast.

Ans. Yeast is used in the preparation of breads, pastries and cakes.

Q12. How do microorganisms make food poisonous?

Ans. By producing toxic substances, microorganisms make food poisonous.

Q13. Name one nitrogen-fixing bacterium.

Ans. One nitrogen-fixing bacterium is Rhizobium.

Q14. Name five diseases prevented by vaccination.

Ans. Five diseases prevented by vaccination are: Polio, Measles, chickenpox, flu and pneumonia.

Q15. Which are commonly called biological nitrogen fixers?

Ans. Some bacteria and blue-green algae are commonly called biological nitrogen fixers.

SHORT ANSWER QUESTION

Q1. Define the following terms:

- a) Microbes
- b) Fermentation
- c) Antibiotics
- d) Pathogens
- e) Communicable diseases
- f) Preservation
- g) Preservative
- h) Pasteurization

a) Microbes : The living organisms which are very small in size and are unable to be seen with naked eye are microbes. For example, bacteria, fungi etc.

b) Fermentation: This process of conversion of sugar into alcohol is known as **fermentation**.

c) Antibiotics: These medicines kill or stop the growth of the disease-causing microorganisms. Such medicines are called **antibiotics**. For example: *Streptomycin, tetracycline*

d) Pathogens: The disease-causing microorganisms are called pathogens. For example viruses, bacteria, fungi, etc.

e) Communicable diseases: Microbial diseases that can spread from an infected person to a healthy person through air, water, food or physical contact are called **communicable diseases**. Examples of such diseases include cholera, common cold, chicken pox and tuberculosis.

f) Preservation: The process of preservation of food from spoilage using suitable chemical or physical methods is called food preservation.

g) Preservatives: The chemicals used to preserve food from spoilage are called preservatives.

g) Pasteurization: Pasteurisation is used for the preservation of milk. It involves the process of heating milk to about 70°C for 15-30 seconds and then cooling quickly to a very low temperature.

Q2. Give reasons for:

- a) Yeast is used for making breads and cakes.
- b) We should not let water collect in coolers, flowerpots etc.
- c) Oil and vinegar prevent spoilage of pickles.
- d) Food kept in the refrigerator not gets spoiled.

Ans a) Yeast is used for making breads and cakes because it reproduces rapidly and produces carbondioxide (CO_2) during respiration which increases its volume which make the breads and cakes soft and fluffy.

Ans b) We should not let water collect in coolers, flowerpots etc. because collected water is the breeding ground for mosquitoes, flies and other microorganisms.

Ans c) Use of oil and vinegar prevents spoilage of pickles because bacteria cannot live in such an environment.

Ans d) Food kept in the refrigerator not gets spoiled because low temperature inhibits the growth of microbes.

Q3. What precaution should be taken while taking antibiotics?

Ans: Antibiotics should be taken after consulting doctor. The complete dose of the antibiotics should be taken. They should not be taken unnecessarily because they will kill the useful bacteria.

Q4. Differentiate between viruses and other microorganisms

Ans:

Viruses	Other Microorganisms
i) They show the characteristics of living organisms only when entered into a host organism.	ii) They do not need to enter into any host organism.
ii) They are non- cellular microbes.	ii) They are cellular microbes.

Q5. Suggest some methods to prevent food from microorganism.

Ans: Growth can be prevented by:

- Keeping in low temperature.
- Keeping things dry.
- Keeping food in clean and dry places.

Q6. What are the various way for nitrogen fixation?

Ans: Nitrogen fixation may be done by the following way:

- i) Lighting
- ii) Nitrogen fixing bacteria eg: *Azotobacter*, *Rhizobium*
- iii) Blue green algae eg: *Anabaena*, *Nostoc*

LONG ANSWER QUESTION

Q1. Explain different physical methods of food preservation.

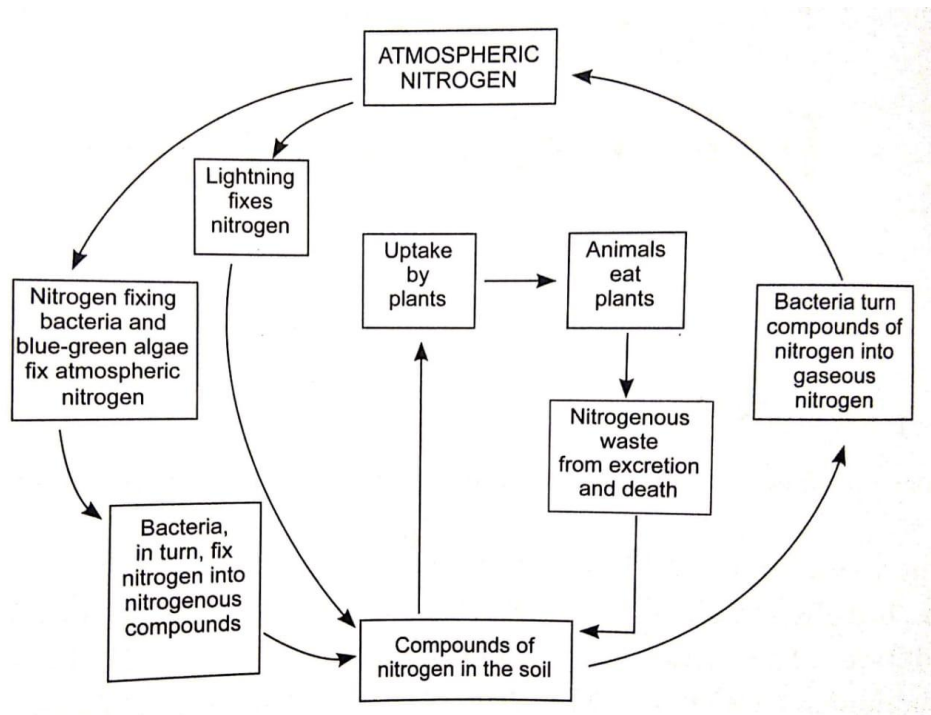
Ans: Various physical methods of food preservation are:

- a) Action of bacteria spoils food. Heating food at high temperature kills bacteria.
- b) Storing food at very low temperature such as in refrigerator prevents spoilage of food.
- c) Drying or dehydration (removal of water from food materials) stops growth of microbes.
- d) Pasteurisation is used for the preservation of milk. It involves the process of heating milk to about 70°C for 15-30 seconds and then cooling quickly to a very low temperature. Pasteurisation was discovered by Louis Pasteur.
- e) Milk can be converted into milk powder by removing moisture content from it.
- f) Proper storage in air tight packets to prevent the attack of microbes.

g) Food may be exposed to high energy gamma rays or X-rays which completely destroy the harmful microorganisms.

Q2. Explain nitrogen cycle along with a flow chart.

Ans: Some bacteria and blue-green algae present in the soil fix nitrogen gas from the atmosphere and convert it into nitrogenous compounds. These useful nitrogenous compounds are then used by plants from the soil with the help of their roots. They help in the synthesis of proteins and other compounds. On the other hand, there are some bacteria that convert some part of nitrogenous compounds into nitrogen gas again and send them back into the atmosphere.



Q3. Write various preventive measures from different communicable diseases.

Ans: Preventive measures are:

- Drink clean and safe water.
- Eat healthy food. Keep food always covered.
- Use mosquito nets and mosquito repellent cream to protect yourself from mosquito bites.
- Don't allow water collection anywhere to avoid breeding of mosquito.
- Cover mouth and nose with handkerchief while sneezing.
- Avoid street food.