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Health: The Ultimate Treasure

Fill in the Blanks

1. According to the World Health Organization, health is a state of complete _____, _____, and _____ well-being.
2. A disease-causing organism is called a _____.
3. Diseases caused by pathogens and capable of spreading from one person to another are called _____ diseases.
4. Diseases such as diabetes, cancer, and asthma that do not spread from one person to another are called _____ diseases.
5. The natural ability of our body to fight diseases is known as _____.
6. The first vaccine was developed by _____ against smallpox.
7. _____ are medicines that kill bacteria and are used to treat bacterial infections.
8. The phenomenon in which bacteria survive and multiply despite treatment with an antibiotic is called _____.
9. Mosquitoes and houseflies that transmit pathogens are called _____.
10. Diseases caused by a lack of specific nutrients in the diet are called _____ diseases.

Multiple Choice Questions

1. Which disease is transmitted by mosquitoes?
 (a) Cholera (b) Typhoid
 (c) Malaria (d) Tuberculosis
2. Which of the following is a communicable disease?
 (a) Diabetes (b) Cancer
 (c) Obesity (d) Typhoid
3. Which of the following is a non-communicable disease?
 (a) Chickenpox (b) Dengue
 (c) Diabetes (d) Cholera
4. Which pathogen causes tuberculosis?
 (a) Virus (b) Bacteria
 (c) Protozoa (d) Worms
5. According to WHO, health includes:
 (a) Only physical fitness (b) Only absence of disease
 (c) Physical, mental, and social well-being (d) Only mental well-being
6. Which of the following helps develop acquired immunity?
 (a) Junk food (b) Vaccination
 (c) Lack of sleep (d) Excessive screen time
7. Who discovered the first vaccine against smallpox?
 (a) Alexander Fleming (b) Edward Jenner
 (c) Kamal Ranadive (d) Maharaj Kishan Bhan

8. Antibiotics are effective mainly against:
- | | |
|-------------------|------------------------------|
| (a) Viruses | (b) Bacteria |
| (c) All pathogens | (d) Nutritional deficiencies |
9. Which of the following diseases can spread through contaminated food and water?
- | | |
|-------------|--------------|
| (a) Cholera | (b) Asthma |
| (c) Cancer | (d) Diabetes |
10. Which of the following is a good way to reduce antibiotic resistance?
- | |
|---|
| (a) Taking antibiotics whenever we have a cold |
| (b) Sharing antibiotics with friends |
| (c) Taking antibiotics only when prescribed by a doctor |
| (d) Stopping antibiotics whenever we feel better |

Assertion – Reason Questions

Directions:

- (a) Both A and R are true and R is the correct explanation.
(b) Both A and R are true but R is not the correct explanation.
(c) A is true but R is false.
(d) A is false but R is true.

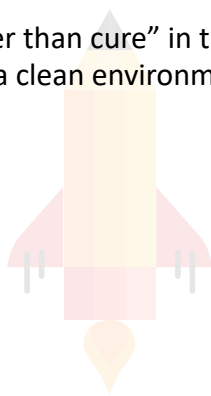
1. Assertion: A healthy person should have good mental and social well-being in addition to physical well-being.
Reason: Health is defined only as the absence of disease.
2. Assertion: Regular exercise helps us maintain good health.
Reason: Physical activity helps keep the body active and supports overall well-being.
3. Assertion: Maintaining clean surroundings can help prevent communicable diseases.
Reason: Poor sanitation can contribute to the spread of infections.
4. Assertion: Vaccines are used to cure a person after they become sick with an infectious disease.
Reason: Vaccines are preventive and help prepare the immune system to fight specific diseases.
5. Assertion: Antibiotics should not normally be taken for influenza.
Reason: Influenza is caused by a virus, whereas antibiotics act against bacteria.

Short Answer Questions

1. What is meant by health according to the WHO?
2. What are the three major aspects of health?
3. What is a pathogen? Give two examples of pathogens.
4. Differentiate between a symptom and a sign of a disease.
5. What are communicable diseases? Give two examples.
6. What are non-communicable diseases? Give two examples.
7. What is immunity? What role does the immune system play in our body?
8. What are vaccines? How do they help protect us from diseases?
9. Why should antibiotics not be taken unnecessarily?
10. Mention any five precautions that can help prevent the spread of communicable diseases.

Long Answer Questions

1. Explain the meaning of health. Why is health considered more than simply the absence of disease?
2. Explain the different factors that influence our health. How do lifestyle, environment, and emotional well-being affect us?
3. Describe five healthy lifestyle practices that a student should follow. Explain how each practice contributes to good health.
4. Differentiate between communicable and non-communicable diseases. Give suitable examples of each and explain their causes.
5. Explain the different ways in which communicable diseases can spread from one person to another. Mention suitable preventive measures.
6. Explain how contaminated food and water can cause diseases. Give examples of diseases spread through contaminated food and water and mention their preventive measures.
7. What is immunity? Explain the role of vaccines in developing acquired immunity. Describe the contribution of Edward Jenner to vaccination.
8. What are antibiotics? Explain how they work against bacterial infections. Why are they not effective against viral diseases?
9. Explain the statement "Prevention is better than cure" in the context of health. Discuss how vaccination, hygiene, sanitation, healthy lifestyle, and a clean environment help prevent diseases.



Answers

Fill in the blanks

1. physical, mental, and social
2. pathogen
3. communicable
4. non-communicable
5. immunity
6. Edward Jenner
7. Antibiotics
8. antibiotic resistance
9. vectors
10. deficiency

MCQs

1. (c) Malaria
2. (d) Typhoid
3. (c) Diabetes
4. (b) Bacteria
5. (c) Physical, mental, and social well-being
6. (b) Vaccination
7. (b) Edward Jenner
8. (b) Bacteria
9. (a) Cholera
10. (c) Taking antibiotics only when prescribed by a doctor

Assertion – Reason

1. (c)
2. (a)
3. (a)
4. (d)
5. (a)

Short Questions – Answers

Ans 1. According to the World Health Organization (WHO), health is a state of complete physical, mental, and social well-being, and not merely the absence of disease. Thus, a healthy person should not only be free from illness but should also have a healthy body, a positive and balanced mind, and healthy relationships with others.

Ans 2. The three major aspects of health are:

- Physical health – proper functioning and fitness of the body.
- Mental health – a positive and balanced state of mind that helps us cope with difficult situations.
- Social health – the ability to maintain healthy relationships and adjust well with family, friends, and society.

All three aspects together contribute to overall well-being.

Ans 3. A pathogen is an organism that causes disease. Pathogens include bacteria, viruses, fungi, worms, and protozoa.

For example:

- Bacteria cause diseases such as tuberculosis and typhoid.
- Viruses cause diseases such as influenza and chickenpox.

One Point Learning

Ans 4. A symptom is something that a person feels or experiences when unwell. Examples include pain, tiredness, dizziness, or nausea.

A sign is something that can be seen, observed, or measured. Examples include fever, rash, swelling, or high blood pressure.

Thus, pain is a symptom, while high body temperature during fever is a sign.

Ans 5. Communicable diseases are diseases caused by pathogens that can spread from one person to another. They may spread through air, direct or indirect contact, contaminated food and water, or vectors such as mosquitoes.

Examples include influenza and typhoid. Other examples are chickenpox, measles, tuberculosis, cholera, malaria, and dengue.

Ans 6. Non-communicable diseases are diseases that do not spread from one person to another. They are generally associated with factors such as lifestyle, diet, environment, and other causes. Examples include diabetes and cancer. Asthma and obesity are also examples of non-communicable diseases.

Ans 7. Immunity is the natural ability of our body to fight diseases. The immune system protects the body from harmful pathogens by recognising and fighting them.

Vaccination can also help develop acquired immunity, in which the immune system learns to recognise and fight a particular pathogen.

Ans 8. Vaccines are preparations that help the body's immune system develop protection against particular diseases. They may contain weakened or dead pathogens, harmless parts of pathogens, or other forms that safely train the immune system.

Vaccines help the immune system recognise and attack harmful germs. Therefore, vaccination can prevent serious infectious diseases and reduce their spread.

Ans 9. Antibiotics work against bacterial infections, not viral infections. Taking them when they are not needed can contribute to antibiotic resistance, in which bacteria survive despite antibiotic treatment.

Therefore, antibiotics should be taken only when prescribed by a doctor, in the correct dose and for the recommended duration.

Ans 10. Five important precautions are:

- Keep ourselves and our surroundings clean.
- Wash hands regularly with soap and water.
- Cover the mouth and nose while coughing or sneezing.
- Avoid sharing personal items such as towels and handkerchiefs.
- Keep food and drinking water clean and safe.

Other precautions include wearing a mask in crowded places when appropriate, staying home and resting when unwell, maintaining good sanitation, and taking recommended vaccinations.

Long Questions – Answers

Ans 1. Health is a state of complete physical, mental, and social well-being, and not merely the absence of disease.

Physical health means that our body is functioning properly and we are able to perform daily activities efficiently. Mental health involves having a positive and balanced mind and being able to cope with difficult situations. Social health refers to maintaining good relationships with family, friends, and other members of society.

For example, a student may not have any physical disease but may feel lonely, stressed, or unable to interact with others. Such a person cannot be considered completely healthy. Therefore, true health involves taking care of the body, mind, emotions, and relationships.

Ans 2. Our health is influenced by several factors, including lifestyle, environment, and emotional well-being.

1. Lifestyle:

Our eating habits, physical activity, sleep, screen time, and personal hygiene affect our health. Eating a balanced diet, exercising regularly, getting sufficient sleep, and limiting screen time help maintain good health.

2. Environment:

Clean air, safe drinking water, proper sanitation, and clean surroundings are important for good health. Air pollution can cause problems such as coughing and asthma, while contaminated food and water can spread diseases.

3. Emotional and social well-being:

Stress, worry, loneliness, and lack of social interaction can negatively affect our well-being. Spending time with family and friends, talking to others, relaxing, practising yoga or meditation, and maintaining positive relationships support mental health.

Thus, good health depends on a combination of healthy habits, a clean environment, and emotional and social well-being.

Ans 3. A student should follow these healthy lifestyle practices:

1. Eat a balanced diet: Eat nutritious food containing fruits, vegetables, whole grains, and other essential nutrients. Processed, fatty, and sugary foods should be limited.
2. Exercise regularly: Playing outdoors, walking, running, cycling, or exercising keeps the body active and fit.
3. Get enough sleep: Adequate sleep allows the body and mind to rest and recover.
4. Maintain personal hygiene: Regular bathing, washing hands, keeping the body clean, and maintaining good hygiene help prevent infections.
5. Manage screen time and stress: Excessive screen use should be avoided. Students should spend time with family and friends and may practise yoga, meditation, or simple breathing exercises. These habits help maintain both physical and mental well-being.

Ans 4.

Basis	Communicable Diseases	Non-communicable Diseases
Meaning	Diseases that can spread from one person to another	Diseases that do not spread from person to person
Cause	Caused by pathogens	Often linked to lifestyle, diet, environment, or other factors
Spread	Through air, food, water, contact, or vectors	They do not spread through infection
Examples	Typhoid, influenza, dengue, chickenpox	Diabetes, cancer, asthma, obesity
Prevention	Hygiene, sanitation, vaccination, avoiding exposure	Healthy diet, physical activity, lifestyle changes and regular care

Understanding this difference helps us choose suitable methods for prevention and control.

Ans 5. Communicable diseases can spread through several routes:

1. Through air:

When an infected person coughs or sneezes, pathogens may spread through droplets or the air. Influenza and tuberculosis can spread this way.

2. Through direct contact:

Some diseases can spread through direct contact with an infected person.

3. Through indirect contact:

Sharing personal items of an infected person can sometimes spread pathogens.

4. Through contaminated food and water:

Diseases such as cholera and typhoid can spread when food or drinking water becomes contaminated.

5. Through vectors:

Insects such as mosquitoes and houseflies can carry pathogens and transmit them to people. Mosquitoes can transmit diseases such as malaria and dengue.

Preventive measures include handwashing, good sanitation, safe food and water, covering the mouth and nose while coughing or sneezing, avoiding sharing personal items, controlling mosquitoes, and vaccination where available.

Ans 6. Food and water can become contaminated with disease-causing pathogens. When people consume such food or water, these pathogens can enter their bodies and cause infections.

Examples include:

Hepatitis A – caused by a virus and affects the liver.

Cholera – caused by bacteria and can cause diarrhoea and dehydration.

Typhoid – caused by bacteria and can cause fever, headache, abdominal discomfort, and diarrhoea.

Ascariasis – caused by roundworms and can spread through contaminated food, water, or soil.

These diseases can be prevented by:

Drinking boiled or safe drinking water.

Eating properly cooked food.

Maintaining personal hygiene.

Washing hands regularly.

Following proper sanitation practices.

Taking recommended vaccinations where available.

Ans 7. Immunity is the natural ability of the body to fight diseases. The immune system protects us against harmful pathogens.

Vaccines help develop acquired immunity by training the immune system to recognise and attack a particular pathogen. They may contain weakened or dead pathogens, harmless parts of pathogens, or other safe forms that stimulate an immune response.

Edward Jenner made an important contribution to vaccination in the late 1700s. He observed that people who had experienced cowpox did not develop smallpox. He tested the idea that material from cowpox could provide protection against smallpox. His work led to the development of the first vaccine and contributed greatly to the eventual eradication of smallpox.

Vaccines are preventive, not curative. They help protect people before serious disease occurs.

Ans 8. Antibiotics are medicines used to treat bacterial infections. They work by targeting parts or processes of bacterial cells that are different from human cells.

Antibiotics are not effective against viruses because viruses are fundamentally different from bacteria and do not have the bacterial structures targeted by antibiotics.

For example, influenza is caused by a virus, so antibiotics should not normally be used to treat it.

Unnecessary use of antibiotics can also contribute to antibiotic resistance. Therefore, antibiotics should be used only when prescribed by a doctor and should be taken in the correct dose and for the prescribed duration.

Ans 9. The statement "Prevention is better than cure" means that it is better to take steps to prevent a disease than to become sick and then require treatment.

Several measures help prevent diseases:

- **Vaccination:** Vaccines prepare the immune system to protect us against certain serious infectious diseases.
- **Personal hygiene:** Regular handwashing and cleanliness help remove pathogens and reduce the spread of infections.
- **Safe food and water:** Drinking safe water and eating properly cooked food can prevent diseases such as cholera and typhoid.
- **Good sanitation:** Proper toilets, waste disposal, and clean surroundings reduce the spread of infectious diseases.
- **Healthy lifestyle:** A balanced diet, regular exercise, sufficient sleep, limited screen time, and avoiding harmful substances help prevent many lifestyle-related health problems.
- **Clean environment:** Clean air, water, and surroundings support good health and reduce exposure to harmful environmental factors.

Thus, prevention through healthy habits, hygiene, vaccination, sanitation, and awareness is an important part of maintaining good health.