

Class: 9
Subject: Biology
Topic: Why Do We Fall
No. of Questions: 24

Q1. What does the word health mean?

Sol. For our grandmothers, being able to go out to the market or to visit neighbours is .being well., and not being able to do such things is .poor health.. Being interested in following the teaching in the classroom so that we can understand the world is called a healthy attitude. While not being interested is called the opposite. .Health is therefore a state of being well enough to function well physically, mentally and socially.

Q2. How does the health of an organism depend upon the surroundings?

Sol. Human beings live in societies. Our social environment, therefore, is an important factor in our individual health. We live in villages, towns or cities. In such places, even our physical environment is decided by our social environment. Consider what would happen if no agency is ensuring that garbage is collected and disposed. What would happen if no one takes responsibility for clearing the drains and ensuring that water does not collect in the streets or open spaces? So, if there is a great deal of garbage thrown in our streets, or if there is open drain water lying stagnant around where we live, the possibility of poor health increases. Therefore, public cleanliness is important for individual health.

Q3. How does the health of an organism depend upon the surroundings?

Sol. Human beings live in societies. Our social environment, therefore, is an important factor in our individual health. We live in villages, towns or cities. In such places, even our physical environment is decided by our social environment. Consider what would happen if no agency is ensuring that garbage is collected and disposed. What would happen if no one takes responsibility for clearing the drains and ensuring that water does not collect in the streets or open spaces? So, if there is a great deal of garbage thrown in our streets, or if there is open drain water lying stagnant around where we live, the possibility of poor health increases. Therefore, public cleanliness is important for individual health.

Q4. What do we mean by “disease”?

Sol. Disease (disturbed ease) in other words, literally means being uncomfortable. However, the word is used in a more limited meaning. We talk of disease when we can find a specific and particular cause for discomfort. This does not mean that we have to know the absolute final cause; we can say that someone is suffering from diarrhoea without knowing exactly what has caused the loose motion. When there is a disease, either the functioning or the appearance of one or more systems of the body will change for the worse. These changes give rise to symptoms and signs of disease.

Q5. State any two conditions essential for being free of disease.

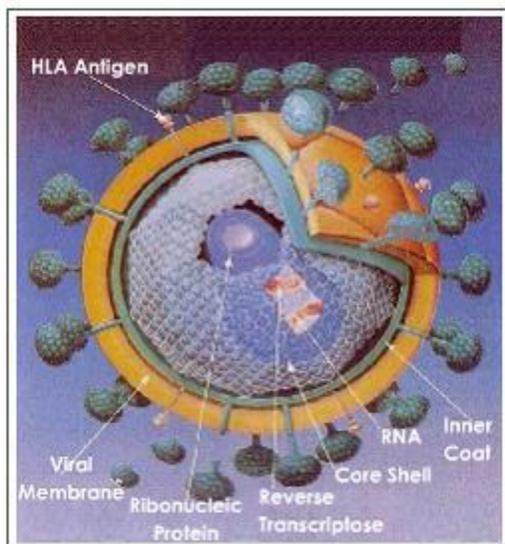
Sol. Two conditions essential for being disease-free are:

1. Person should take balance diet.
2. Personal and community hygiene.

Q6. List some general principles of prevention.

- Sol.
- | | | |
|-------------------------------|------------------|----------------------------|
| 1. prevention of overcrowding | 2. sanitation | 3. safe drinking water |
| 4. taking good nutrition | 5. proper habits | 6. freedom from addictions |
| 7. exercise | 8. Relaxation | |

Q7. Identify the virus. Mention 2 ways in which the disease spreads.



Sol. A : It is the AIDS virus

B : AIDS spreads in the following way

- Sexual contact with the infected person
- From mother to child
- Through exchange of body fluids

Q8. What is other chemical name of vitamin -C?

Sol. Ascorbic acid is the chemical name of vitamin-C.

Q9. A patient has been recommended to eat the husk of isabgol with water or curd. What is he suffering from?

Sol. The patient is suffering from diarrhoea.

Q10. An athlete has just won the marathon and he is very tired and on the verge of dehydration. What first aid will you administer?

Sol. The athlete should be given a rehydration fluid or a pinch of salt and sugar in about 200 mL of water.

Q11. A certain woman has a second pregnancy when the first child is too young. What is the first child likely to suffer from?

Sol. The first child is likely to suffer from marasmus.

Q12. A certain family buys salt of inferior quality. They also do not have access to sea food, vegetables and fruits. As a result the children suffer from retarded mental and physical growth. What deficiency are they facing? Suggest 2 remedies.

Sol. They are suffering from deficiency of iodine.

Remedies are as follows:

- Sodium iodate tablets
- Iodised salts
- Intra muscular injection of iodised oil

Q13. In which of the following case do you think the long-term effects on your health are likely to be most unpleasant?

- If you get jaundice,
- if you get lice,
- If you get acne.

Why?

Sol. Jaundice is a disease that can cause long-term effects on our health. It is a chronic disease that lasts for a long period of time. Jaundice does not spread rapidly, but it develops slowly over a period of time.

Q14. What is immunization?

Sol. Immunization is defined as protection of the body from communicable diseases by administration of some agent that mimics the microbe. This suspension of killed microbes that mimics the disease-causing microbes is known as vaccine

Q15. What are the immunization programmes available at the nearest health centre in your locality? Which of these diseases are the major health problems in your area?

Sol. The immunization programmes available at the nearest health centre are DPT (Diphtheria, Pertussis, and Tetanus), polio vaccine, hepatitis B, MMR (Measles, Mumps, and Rubella), jaundice, typhoid, etc. Of all these diseases, jaundice and typhoid are major health problems.

Q16. Who discovered Vaccine for the first time and which one?

Sol. Edward Jenner invented the vaccine for the first time and it was of smallpox.

Q17. Name the Organs which are targeted by specific diseases :

Sol. a. Hepatitis : Liver
b. Fungal Diseases : Skin
c. Pneumonia : Lungs
d. TB : lungs
e. Diarrhoea : Intestines.

Q18. Name the diseases which are caused by :
Bacteria, Viruses, Fungi, Ring worm, Protozoa

Sol. a. Bacteria : TB, Typhoid, Anthrax and Tetanus
b. Viruses : Common Cold, AIDS, Dengue fever and Mumps.
c. Fungi : Ring worm, Skin infections and Athlete's foot
d. Protozoa : Malaria, Kala Azar, Sleeping Sickness and Amoebiasis

Q19. Differentiate Congenital Diseases from Acquired ones.

Sol. Congenital :
a. These occur since from birth.
b. inherited from the parents to the offspring.
Acquired :
a. It occurs during the lifetime of the person and not from the birth.
b. It does not get inherited. It occurs due to pathogens or due to deficiency of nutrients, hormonal imbalance or due to degeneration of the tissues.

Q20. (i) Name a worm which is found in our small intestine.
(ii) Name the bacteria which can cause acne.
(iii) Which protozoan is responsible for sleeping sickness ?
(iv) Which disease is caused by the protozoan Leishmania ?

- Sol. (i) Ascaris. (ii) Staphylococci.
(iii) Trypanosoma. (iv) Kala-azar

Q21. Penicillin is not effective against common cold. Why ?

Sol. Penicillin is an antibiotic which blocks cell wall and formation of biochemical pathways. Common cold is caused by virus which does not have any cell wall or biochemical pathways. Hence, penicillin is not effective against it

Q22. If you go to the hospital to meet your friend suffering from malaria, what are the chances of malaria spreading to you and your friends ?

Sol. Malaria is caused by plasmodium. It is carried by an insect/vector, female anopheles mosquito

Q23. Why are antibiotics effective against bacteria but not against viruses ?

Sol. Antibiotics block the bacterial processes that build the cell wall. As a result, the growing bacteria become unable to make cell walls and die easily. However, viruses have few biochemical mechanism of their own and these instead use products of the host body. Hence, these are unaffected by antibiotics.

Q24. State in tabular form the modes of transmission of each of the following diseases :
(i) Syphilis (ii) Tuberculosis (iii) Jaundice (iv) Japanese encephalitis

Sol.

Name of the disease	Mode of transmission
Syphilis	Sexual contact
Tuberculosis	Air
Jaundice	Water
Japanese encephalitis	Mosquito bite