Lakhmir Singh Solutions Class 9 Biology Chapter 5 Why do we fall ill?

1. Differentiate between healthy and disease-free.

Answer:

Healthy is a state of physical, social, and mental well being while disease-free is a state of absence of body comfort. A healthy person can be disease-free but a disease-free person cannot be a healthy person.

2. Name the health problems subsequent to a disaster.

Answer:

It is impossible to eliminate altogether disaster or problems that lead to medical care, disease prevention, health education, and dealing, deciding on the essential drug list, case definition, and standard.

3. What provisions are made by local authorities to provide clean drinking water?

Answer:

The local municipality authority should take care of purifying water that has been stored in thanks

by adding bleaching powder to the contaminated water to supply purified water to all the people of the locality.

4. What provisions are made by local authorities for solid waste management?

Answer

Local government must provide waste management services, which waste separation, compacting, management, and disposal of solid waste.

5. Distinguish between symptoms and signs of a disease.

Answer:

A symptom is a phenomenon that is experienced by the individual affected by the disease, while a sign is a phenomenon that can be detected by someone other than the individual affected by the disease.

For example, anxiety, pain, and fatigue are all symptoms.

6. Write down the causal organisms of the following diseases:

Tuberculosis, Kala-azar, Malaria, Measles, Athlete’s foot, Cholera.

Answer

Mycobacterium tuberculosis Leishmania donovani

Malaria – Plasmodium malariae

Measles – RNA paramyxovirus

Athlete’s foot-Trichophyton mentagrophytes

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Cholera- Vibrio cholerae

7. Mention two means of physical contact by which AIDS does not spread.

Answer

Kissing and hugging do not causes AIDS to spread.

8. Differentiate between carrier and vector.

Answer

Carrier is an individual who has the disease, but no symptoms; it is capable of transmitting the disease to a new individual.

Vector is an organism which is capable of transmitting disease from infected individual to new individual without having the disease.

9. Write a short note on organ-specific and tissue-specific manifestations of disease.

Answer

When the microbes affect the entire organ, such as lungs or kidneys, it is known as organ-specific manifestation. The microorganisms that enter the body travel to a specific organ and multiply there. Different microbes are at home in different parts of the body. For instance, Mycobacterium tuberculosis is the bacteria that cause tuberculosis.

When the entire tissue is affected by the microbes, it is called a tissue-specific manifestation. The immune system is also activated in response to the infections. The microorganisms enter into the tissues and damage it. The immune system recruits the disease-causing microbes and destroys them.

This is known as inflammation.

10. Explain how the body reacts after the entry of a microbe in the body.

Answer

When a microbe/ Antigens enter our body our immune system identifies and kills that pathogen by producing antibodies against it. The immune system consists of White Blood Cells that fight with pathogens and provide protection to our body.

11. Why a person suffering from AIDS cannot fight even very small infections?

Answer

AIDS is a disease in which the immune system of the individual gets affected. Hence, an infected person's body is not able to fight even minor diseases.

12. We can treat an infectious disease by killing microbe". Justify the statement with suitable examples.

Answer

Yes, we can treat an infectious disease by killing the microbes that cause infectious disease Diseases where infectious agents such as bacteria, viruses, or other microbes are involved in infectious diseases. The disease can be cured using microbe specific disease. For example antibiotic penicillin blocks the cell wall formation in bacteria and quinine is used to treat malaria.

13. Prevention is better than cure". Explain.

Answer

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Prevention is considered as better than cure because it saves us from the harm of curing through medicines. Prevention is a safe way to remain away from any problem. We just need to maintain a healthy and disciplined lifestyle all through life. Whereas, our carelessness lead us toward cure using medicines or other treatments. Cure cannot cure us completely however prevention keeps us away from danger and maintains normal health.

14. Explain how does vaccine work?

Answer

Vaccines are like a training course for the immune system. They prepare the body to fight disease without exposing it to disease symptoms. When foreign invaders such as bacteria or viruses enter the body, immune cells called lymphocytes respond by producing antibodies, which are protein molecules.

15. Name any three diseases of human beings caused by bacteria and three diseases caused by the virus.

Answer

Bacterial diseases – Tuberculosis, Diphtheria, Whooping Cough, or Pertussis.

Viral diseases – Chickenpox, Flu (influenza), Herpes.

16. How does dehydration set in during diarrhea?

Answer

A prolonged bout of diarrhea or vomiting can cause the body to lose more fluid than it can take in. The result is dehydration, which occurs when your body doesn't have the fluid it needs to function properly. Severe dehydration can cause your kidneys to shut down.

17. In a cluster of hutments, many people are suffering from malaria. Mention the unhygienic conditions that must be prevailing in that locality. How does a doctor confirm malaria?

Answer

The unhygienic conditions that must be prevailing in that locality are dirty water and litter around the space. Doctors use thick and thin blood smears to find out whether malaria-causing parasites are in your blood. These tests should be done if you have been in a region where malaria is present, you were exposed to mosquitoes, and you have flu-like symptoms. A blood smear is prepared from a blood sample.

18. Explain the methods of, prevention of malaria.

Answer

- Malaria can often be avoided using the following methods:
- Awareness of risk – find out whether you're at risk of getting malaria
- Bite prevention – avoid mosquito bites by using insect repellent
- Covering your arms and legs, and using a mosquito net.

19. It was diagnosed that the body of a patient has lost its power of fighting any infection. Name the disease he is suffering from. What type of microbe is responsible for this disease and how does it spread from one person to the other.

Answer

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HIV/AIDS is a disease caused by the human immunodeficiency virus which is a lentivirus. This virus drastically decreases the immunity of a person towards other infections and as it attacks and kills a vast majority of the individual's T-helper cells. HIV/AIDS can be prevented by using safe sex practices, using condoms, not indulging in sexual relationships with multiple partners, using unused or sterilized needles, etc.

20. Define diarrhea. Give an account of occurrence, symptoms, prevention, and control of this ailment.

Answer

The main symptom of diarrhea is loose, watery bowel motions (stools, feces) three or more times a day. Signs and symptoms may include:

Abdominal pain and cramping, Change in color of your stools, Mucous, pus, blood, or fat in your stools, Vomiting, General body weakness, and tiredness.

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