## NCERT SOLUTIONS

**CLASS-9th** 



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Class: 9th
Subject: Science
Chapter: 13

Chapter Name: WHY DO WE FALL ILL?

Q1 State any two conditions essential for good health.

Answer. Good health of a person depends on (i) social environment. (ii) public cleanliness. (iii) good economic conditions and earnings. (iv) social equality and harmony.

Page: 178, Block Name: Questions

Q2 State any two conditions essential for being free of disease.

Answer. The conditions essential for being free of diseases (i) Taking good food (balanced diet) (ii) Maintaining personal and public hygiene.

Page: 178, Block Name: Questions

Q3 Are the answers to the above questions necessarily the same or different? Why?

Answer. The answers are not same all the time. Because the meaning of health varies from person to person. For example, good health for a dancer may be being able to stretch his body into difficult but graceful positions. On the other hand, good health for a musician may mean having enough breathing capacity in his/her lungs to control his/her voice. There is one similarity in both the cases. If the conditions essential for good health are maintained, then there are no chances of getting a disease.

Page: 178, Block Name: Questions

Q1 List any three reasons why you would think that you are sick and ought to see a doctor. If only one of these symptoms were present, would you still go to the doctor? Why or why not?

Answer. When there is a disease, its symptoms and signs appear. These symptoms may be headache, cough, loose-motions, wound with pus, etc. These symptoms indicate disease but do not tell what the disease is. So, it is advisable to go to the doctor to diagnose any signs of a disease on the basis of these symptoms. The doctor will get

laboratory tests done, if required for the confirmation of a particular disease.

Page: 180, Block Name: Questions

Q2 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?

Answer. Lice and acne will not cause long lasting effects on our body. But in case of jaundice, there will be severe long lasting effects. For example: (i) High temperature, headache and joint pains. (ii) Feeling of nausea and vomiting. (iii) Initiating rashes. The patient will suffer from poor health and will recover by taking complete bed rest for sometime.

Page: 180, Block Name: Questions

Q1 Why are we normally advised to take bland and nourishing food when we are sick?

Answer. In case of illness, the normal functions of the body get disturbed. So, a nourishing food is required which is easily digestible and contains all the nutrients. Therefore, bland and nourishing food is advised to take during sickness.

Page: 186, Block Name: Questions

Q2 What are the different means by which infectious diseases are spread?

Answer. Infectious diseases spread by different means. These are: (i) Through air An infected person when sneezes or coughs releases droplets containing germs. These droplets infect another healthy person through air and microbes enter a new body. Examples of such diseases are common cold, pneumonia and tuberculosis. (ii) Through water If the water source is polluted by the excreta of infectious persons having gut diseases and this water is used by other people they will be infected by diseases. For example, cholera, amoebiasis, hepatitis spread through water. (iii) Through sexual contact Some diseases like AIDS and syphilis, etc., are transmitted by sexual contact. Other than this, AIDS virus also spread through blood, infected syringes, infected mother to her baby during pregnancy and through breast feeding. (iv) Through vectors There are some animals which act as intermediaries or vectors for a particular diseases. The vectors

Page 2 of 5

carry diseases from infected person to the healthy person. For example, mosquito spread malaria causing organism in humans, while sucking their blood.

Page: 186, Block Name: Questions

Q3 What precautions can you take in your school to reduce the incidence of infectious diseases?

Answer. To prevent the incidence of infectious diseases in school following precautions can be taken: (i) Avoid contact of students suffering from air borne diseases like common cold, cough, eye, flu, etc. (ii) By checking the availability of clean drinking water in school. (iii) Clean surroundings in school will not allow the growth and multiplication of vectors. (iv) Starting childhood immunisation programme in schools.

Page: 186, Block Name: Questions

Q4 What is immunisation?

Answer. Immunisation is a process of administration (injecting) of vaccine into a healthy person in order to develop immunity against a disease. Immunity means the ability of a body to recognise, destroy and eliminate external disease causing agents. This immunisation through administering vaccine is called vaccination. Vaccine contains disease-causing organisms in a diluted or weakened form or in living or dead form. It prevents further infection by microbes from causing the disease. The diseases like small pox, rabies, diphtheria chicken pox, polio, hepatitis are controlled by vaccination. Small pox is eliminated from the world through a world wide vaccination programme.

Page: 186, Block Name: Questions

Q5 What are the immunisation programmes available at the nearest health centre in your locality? Which of these diseases are the major health problems in your area?

Answer. The following immunisation programme is available at the nearest health centre in our locality (i) Immunisation for infants—DPT, BCG, polio, measles and MMR. (ii) For children—Typhoid, TT, DT, small pox and TAB. (iii) For pregnant woman— TT and hepatitis-B. The diseases like typhoid, polio, measles, tetanus are the major health problems in our locality. To prevent these diseases, our government have initiated expanded immunisation programme all over the country.

Page: 186, Block Name: Questions

- Q1 How many times did you fall ill in the last one year? What were the illnesses?
- (a) Think of one change you could make in your habits in order to avoid any of/most of the above illnesses.
- (b) Think of one change you would wish for in your surroundings in order to avoid any of/most of the above illnesses.

Answer, DIY

Page: 187, Block Name: Exercise

Q2 A doctor/nurse/health-worker is exposed to more sick people than others in the community. Find out how she/he avoids getting sick herself/himself.

Answer. A doctor/nurse/health worker is exposed to more sick people in the community. He/she avoids getting sick by: (I) keeping place of work sterilized by using phenyl etc. (ii) keeping equipments, that are regularly in use, sterilized. (iii) washing hands with soap thoroughly after serious examination of patients. (iv) getting themselves vaccinated against various diseases.

Page: 187, Block Name: Exercise

Q3 Conduct a survey in your neighbourhood to find out what the three most common diseases are. Suggest three steps that could be taken by your local authorities to bring down the incidence of these diseases.

Answer. After conducting a survey in my neighborhood, I found out that the three most common diseases in my area are diarrhea, malaria, and typhoid. Three steps that could be taken by local authorities to bring down the incidences of these diseases are: (i) proper disposal of garbage and regular cleaning of roads and streets. (ii) regular cleaning of drains and spraying of insecticides. (iii) provision of clean drinking water.

Page: 187, Block Name: Exercise

Q4 A baby is not able to tell her/his caretakers that she/he is sick. What would help us to find out

- (a) that the baby is sick?
- (b) what is the sickness?

Answer. (a) Symptoms that help us to find that baby is sick, are (i) Continuous crying and restlessness of the child (ii) Improper intake of food and body temperature.

(b) Kind of sickness can be known by certain organ-specific and tissue-specific symptoms

e.g., yellowness of skin and eyes indicate the jaundice and hepatitis.

Page: 188, Block Name: Exercise

- Q5 Under which of the following conditions is a person most likely to fall sick?
- (a) when she is recovering from malaria.
- (b) when she has recovered from malaria and is taking care of someone suffering from chicken-pox.
- (c) when she is on a four-day fast after recovering from malaria and is taking care of someone suffering from chicken-pox. Why?

Answer. A person is most likely to fall sick in (c) condition because malaria attack has caused large scale destruction of her blood cells so she is weak and anemic. Then she is on a four-day fast so is not getting proper and sufficient food which further decreases the functioning of her immune system and lastly chickenpox is a communicable and contagious disease.

Page: 188, Block Name: Exercise

- Q6. Under which of the following conditions are you most likely to fall sick?
- (a) when you are taking examinations.
- (b) when you have travelled by bus and train for two days.
- (c) when your friend is suffering from measles. Why?

Answer. I will be most likely to fall sick when my friend is suffering from measles and I come in contact with him because measles is contagious disease and also spreads by droplet infection.

Page: 188, Block Name: Exercise