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Solution SAQ - 1

Healthy:

1. It is a state of complete physical, mental and social well being.
2. A healthy person will be disease free.

Disease Free:

1. It is a state of absence of discomfort or derangement in any part of body.
2. A disease free person can be healthy or unhealthy.

Solution SAQ - 2

There are many types of health problems that can possibly arise after disaster such as victims of disaster might suffer from lack of nourishment due to inadequate food.

The immediate health problems after disaster includes suffering of trapped people, people may suffer from fractures, burns and asthma due to dust particles arising from buildings. Contaminated water can also cause other health issues.

Solution SAQ - 3

The provisions made by local authorities was to allocate funds and guide investments, encourage research, develop human resources through training and other capacity-building efforts, promote water quality monitoring, provide guidelines for various programmes and ensure the implementation of the water supply programmes.

Solution SAQ - 4

There are many provisions provided by local authorities for solid waste management. These are followings:

- (i) Sweeping
- (ii) Collection
- (iii) Vermi-composting
- (iv) Recycling system
- (v) Transportation system
- (vi) Power generation and
- (vii) Dumping

Solution SAQ - 5:

Symptoms:

1. They indicate the presence of disease.
2. Symptoms are a collective indication of a number of diseases in a particular part or organ.

Signs:

1. They provide information about the presence of particular disease.
2. They are distinct for different diseases.

Solution SAQ - 6:

Casual organisms of the following diseases:

- (i) Tuberculosis - Mycobacterium tuberculosis
- (ii) Kala-azar - Leishmania (protozoa)
- (iii) Malaria - Plasmodium
- (iv) Measles - Virus
- (v) Athlete's foot - Fungi
- (vi) Cholera - Vibrio Cholerae

Solution SAQ - 7:

Two means of physical contacts by which AIDS does not spread are handshakes and hugs.

Solution SAQ - 8

A vector is a carrier (mosquito, tick) that takes the disease from an

infected individual to an uninfected individual. They do not have the disease themselves; they carry the infected agent such as blood. A reservoir is anything (person, animal, arthropod, plant, soil or substance) in which a disease lives and can multiply. The disease needs the reservoir in order to survive. A vector must be living but a reservoir can be a living or a non living thing such as soil or water. Vectors or carriers are not pathogenic but are simply transmitters.

Solution SAQ - 9

Organ Specific Manifestation- These are the diseases caused in the same organ or organ system as the point of entry of the microbe.

E.g. Tuberculosis which enters through the nose and affects the lungs. (Both are organs of the respiratory system)

Tissue Specific Manifestation- These are the diseases caused in a different organ as the point of entry. E.g. Japanese Encephalitis which enters through the blood but affects the brain.

Solution SAQ - 10

There are many possible areas, organs and tissues within our body where microbes may reside. However the severity of disease symptoms depends on the number of microbes in the body. For example, if the number of microbes is very small, then the symptoms of disease will be minor or unnoticed. However, if the numbers are large, the disease can be severe enough to be life-risking.

Solution SAQ - 11

Infection of HIV is found to have multiple dimensional effects. In case of HIV infection, the virus goes to immune system and ultimately damages its function. Thus many symptoms of HIV - AIDS infection are due to the fact that patients body no longer fight off many minor infections that he/she faces everyday.

Solution SAQ - 12

There are two ways to treat an infectious disease. One is to reduce the effects of the disease and the other way is to kill the cause of the disease.

For example, we can take the medicines that bring down the fever, reduce pain or loose motions. We can take bed rest so that we can conserve our energy. This exercise will enable us to focus on the healing. However it will not make the pathogen to go away, so the disease will not be cured. For that we have to kill the microbe.

Solution SAQ - 13

Prevention is better than cure as a disease always cause some damage to the body, loss of working days, besides expenditure on medication. The important precautions for preventing occurrence of diseases include (i) hygienic environment; (ii) personal hygiene; (iii) proper nutrition; (iv) clean food; (v) clean water; (vi) regular exercise and (vii) adequate relaxation. Everybody should also be aware of diseases and their mode of spreading (epidemic). A regular medical checkup is also earnestly required to stay healthy.

Solution SAQ - 14

Vaccines help a body's immune system prepare in advance to fight infectious illnesses and potentially deadly diseases caused by infectious agents or their by-products. Vaccines work on the principle of immunization. During vaccination, when the immune system first encounters an infectious microbe, it responds against it and then remembers it specifically. So the next time that particular microbe, or its close relatives enter the body, the immune system responds with greater vigour. This eliminates the infection even more quickly than the first occurrence of the disease.

Solution SAQ - 15

Three diseases caused by Bacteria are: Tuberculosis (T.B.), Cholera and Typhoid.

Three diseases caused by Virus are: - Influenza, Jaundice and AIDS.

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