Chapter 8 - Diseases and First Aid

Multiple Choice Questions:

1. Put a tick mark (✓) against the correct alternative in the following statements:

(a) A mosquito is a vector for

1. Typhoid

2. Cholera

3. Malaria

4. Jaundice

Solution: 3. Malaria

(b) Dengue is caused by a

1. Protozoan

2. Virus

3. Worm

4. Fungus

Solution: 2. Virus

(c) The idea of vaccination was conceived by

1. Charles Darwin

2. Alexander Flemming

3. Issac Newton

4. Edward Jenner

Solution: 4. Edward Jenner

(d) Which one of the following is not a psychotropic drug?

1. Morphine

2. Cocaine

3. Heroin

4. Penicillin

Solution: 4. Penicillin

(e) Which one of the following is a communicable disease?

1. Measles

2. Cancer

3. Heart stroke

4. Allergy

Solution: 1. Measles

(f) Cataract is a disease of:-

1. Ears

2. Nose

3. Eyes

4. Throat

Solution: 3. Eyes

(g) Infectious diseases can be prevented by:

1. Medicines

2. Proper food

3. Immunisation

4. Exercise

Solution: 3. Immunisation

(h) Which one of the following is a genetic disease?

1. Scuryy

2. Leukemia

3. Goitre

4. Haemophilia

Solution: 4. Haemophilia

(i) Which one of the following is a degenerative disease?

1. Thalassemia

2. Beri-beri

3. Cataract

4. Diabetes

Solution: 3. Cataract

(J) Pellagra is one disease caused by the deficiency of:

1. Vit B_3

2. Vit B_1

3. Vit.C

4. Vit D

Solution: 1.Vit B_3

(k) Hay fever and asthma are

1. Deficiency diseases

2. Genetic diseases

3. Organic diseases

4. Allergy diseases

Solution: 4. Allergy diseases

(l) Which one of the following vitamin diseases can be cured by eating a diet which includes carrot, yellow fruits, vegetables, butter, milk, fish?

1. Beri-beri

2. Dermatitis

3. Night blindness

4. Scurvy

Solution: 3. Night blindness

Short Answer Questions

Question 1 (a)

What is a non-communicable disease?

Solution:

The non-communicable disease is a disease which is not caused by germs and not transmitted from one to another. This is caused by some improper functioning of the body organs. Examples of non-communicable diseases are diabetes, heart attack etc.

Question 1 (b)

What are communicable diseases?

Solution:

Communicable diseases are diseases which transmit from one person to another by the entry of microorganisms.

Question 1 (c)

How can we control the spreading of diseases by mosquitoes and houseflies?

Solution:

We can spreading of diseases by mosquitoes and houseflies by using repellants, avoiding stagnation of water, checking breeding of these insects and throwing garbage in covered bins.

Question 1(d)

Public hygiene is equally important as personal hygiene. Give reasons.

Solution:

Personal hygiene means keeping ourselves clean whereas public hygiene means keeping our surrounding clean. If our surrounding is clean, then it gives us good mental health. That is why, Public hygiene is equally important as personal hygiene.

Question 1(e)

What is a deficiency disease?

Solution:

Deficiency diseases such as anaemia, goitre are caused by lack of nutrients, vitamins, minerals etc.

Question 1(f).

Biting nails should be strictly avoided. Give reason.

Solution:

Biting nails should be strictly avoided because our nails may have dirt which has many bacteria causing diseases. To prevent such diseases, we need to cut our nails regularly.

Question 1(g).

Regular exercise and proper rest is a must. Give reason.

Solution:

Regular exercise and proper rest is a must because exercise keeps our body strong and immune to many diseases and rests refreshes our body.

Question 1(h)

Children eating more fast food tend to suffer from obesity (overweight). Comment.

Solution:

Nowadays children are fond of fast foods like pizza, burger, patty, oily foods etc. such foods have much carbohydrates and fats. That's why they are gaining more fat and weight soon.

2. Name the following:

Question 2(a)

Viral disease caused due to unhealthy sexual contact

Solution: AIDS.

Question 2(b)

A disease caused due to Plasmodium

Solution: Malaria.

Question 2(c)

A disease caused by the bite of female Anopheles mosquito

Solution: Malaria.

Question 2(d)

Two viral diseases caused by mosquito bites

Solution: Dengu, Chikungunya.

Question 2(e)

Any droplet - borne disease.

Solution: Amoebiasis, Cholera, Hepatitis A.

Question 2(f)

A viral disease caused by the bite of a dog

Solution: Rabies/Hydrophobia

Question 2 (g)

A disease due to choking of coronary artery

Solution: Atherosclerosis

Question 2(h)

Two diseases caused due to deficiency of protein in the diet of a child.

Solution: Kwashiorkor and marasmus.

3. Write short (2-3) notes on the following:

Disease, immunisation, pathogen, AIDS, vaccination, vector.

Solution:

Disease: Disease is caused by a deficiency of nutrients or improper functioning of the body or genetic disorder, which is defined as the departure from actual health to ill due to the structural or functional disorder of the body. Example: Cancer, brain tumour, heart attack etc.

Immunisation: Immunisation is the process of developing resistance to the weeken the germs into the body and the body immune will get improved.
The germs or the material introduced into the body to make it resistant to the concerned disease is called vaccin e. This produces antibodies in the body of the person, and these antibodies can save the person. Polio drops, tap vaccine for typhoid, BCG vaccine for tuberculosis are the examples of immunisation.

Pathogens: Pathogens are germs that cause diseases to human beings and other animals and plants. They spread the diseases from person to person or through the air or the articles of the deceased persons. Bacteria, fungi, protozoans or worms are the types of Pathogens.

AID'S (Acquired Immune Deficiency Syndrome): AIDS is a deadly viral disease caused by the virus called HIV (Human immunodeficiency virus). This virus makes the defence mechanism of the human body very weak. The immune system in the body as W.B.C. becomes weak. Thus the person catches the infectious diseases very easily.

This disease spreads through sexual contact as one of the partners may be a carrier of the disease. It may spread through the blood transfusion and infected syringes, blades of the barbers, and also it may infect the developing baby through the blood by the mother.

Vaccination: Vaccination is a method of making the body immune to a particular disease by injecting killed or we akened disease causing microbe into a body to stimulate the formation of antibodies and develop immunity to t hat disease causing microbe.

Vector: A vector is an organism that carries disease causing microbes (pathogens) from one host to another. They are the carriers of infection. Example: Mosquito, housefly, etc.

P.Q. Fill in the blanks by selecting suitable words given below:

(clotting, goitre, insulin, rickets, iron, proteins)

(a) Anaemia is caused due to the deficiency of **iron.**

(b) Deficiency of Vit. D causes **rickets** in children.

(c) Deficiency of iodine in the diet may cause **goitre**.

(d) Diabetes is caused due to undersecretion of **insulin.**

(e) Kwashiorkor is caused due to the deficiency of **proteins.**

(f) Haemophilia is a disease caused due to slow **clotting** of the blood.

P.Q. Find the odd one out:

(a) Typhoid, cholera, jaundice, tuberculosis, tetanus.

Solution: Jaundice

(b) Cold, AIDS, plague, malaria, measles.

Solution: Malaria

(c) Scurvy, rickets, haemophilia, pellagra, night blindness.

Solution: Haemophilia

(d) Proteins, carbohydrates, fats, minerals, cancer.

Solution: Cancer

P.Q. Fill in the blank in the following table:

Vitamin	**Name of the deficiency diseases**	**Source of vitamin**	**Function of vitamin**
(a) Vitamin A	_____	_____	_____
(b) _____	Beri-beri	_____	_____
(c) Ascorbic acid	_____	_____	_____
(d) _____	Rickets (in childhood)bones turn soft	_____	_____

Solution:

Vitamin	**Name of the deficiency diseases**	**Source of vitamin**	**Function of vitamin**
(a) Vitamin A	Night blindness	Carrot, fish, milk, yellow fruits.	The growth of hair, skin
(b) Vitamin B_1	Beri-beri	Eggs, nuts legume	Carbohydrate metabolism
(c) Ascorbic acid	Scurvy (bleeding gums)	Citrus fruits, tomatoes	Develops immunity

(d) Vitamin D	Rickets (in childhood)bones turn soft	Sunlight, milk, butter, fish liver oil, egg yolk	Controls calcium-phosphorus metabolism.

Long Answer Questions:

Question 1.

What is vaccination? Mention the four ways in which vaccines are prepared, giving the name of one disease for which each type of vaccine is used.

Solution:

We introduce germs or germ substances in the body, i.e. vaccine to develop resistance in the body against a particular disease. The material introduced into the body is called vaccine; this practice is called prophylaxis. This vaccine is put into the body orally as polio drops or by injection as a TAB vaccine.
Vaccine or vaccination was attached with smallpox, but it is now used in a general sense.

Preparation:

1. Killed germs are introduced into the body which acts a vaccine for TAB, a vaccine for typhoid, Salk's vaccine for poliomyelitis. Rabies vaccine for a dog bite.

2. **Living weakened germs**: The living germs are treated in such a way they become very weak and cannot cause the disease. They can induce antibody formation such as the vaccine for measles and the freeze-dried BCG vaccine for tuberculosis.

3. **Living fully virulent germs**: These virulent germs in small doses are introduced into the body as a vaccine, and these produce antibodies in the body, and these do not allow the germs of a particular type to cause that disease: In this vaccination, the person is inoculated with cowpox virus. It is very similar to the smallpox virus.

4. **Toxoids**: Toxoids are prepared from the extracts of toxins which are secreted by bacteria. These are poisons and made harmless by adding formalin into them. They retain their capacity, and as a result, when introduced into the body they produce into the body and do not allow the germs to grow in the body as vaccines for diphtheria and tetanus.

Question 2.

Burns can be superficial burns, deep burns or chemical burns. What emergency care you would suggest in each c ase.

Solution:

When one gets burnt up accidentally one should not pull clothes from the burnt area and one should not cut the blisters. One should apply butter, Vaseline or ointment.

Superficial burns: When there are superficial bums, put cold water on it and apply some oily substance, burnol, castor oil, Vaseline, butter etc.

Deep burns: When there are deep bums, do not put cold water on the burnt area. Seek the help of hospital, and one should be kept under the treatment of some expert doctor of skin.

Chemical burns: When there are chemical burns, i.e. due to acid and other chemicals, with running water for 10 minutes and then cover with dressing.

Question 3. Describe the ways in which communicable diseases are transmitted through various indirect metho ds.

Solution:

Indirect methods of transmission of communicable diseases:

1. **Using items used by the infected persons:** The healthy persons may be infected by using things like towel, hankey, utensils, bedding used by the patient infected by the communicable diseases. Diseases like tuberculosis, ringworm, common cold, and influenza are transmitted by this method.
2. **Contaminated food and water:** Diseases like dysentery, cholera spread through the contaminated food and water. Health person may also be infected by germs when taken the food where flies are sitting. It may cause vomiting and loose motions. Similarly, water and food infected by Entamoeba may cause dysentery to persons who may take contaminated food.

3. **Vectors or carriers:** Organisms like mosquitoes and house flies, ticks carry germs from the source of infection and pass on the germs to the normal persons who are affected by malaria, cholera, plague. These organisms which carry the disease are called vectors and are not infected themselves. Mosquitoes suck blood and carry the disease causing protozoans from infected persons to healthy persons.

4**. Air:** We know that billions of germs get spread in air may affect the healthy person when a person is having cold sneeze. Tuberculosis passes from one person to another by coughing or sneezing of the infected person. These germs remain suspended in the air and persons may be infected by these spores or germs.