A. 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

Answer: 3. Malaria

(b) Dengue is caused by a

1. Protozoan

2. Virus

3. Worm

4. Fungus

Answer: 2. Virus

(c) The idea of vaccination was conceived by

1. Charles Darwin

2. Alexander Flemming

3. Issac Newton

4. Edward Jenner

Answer: 4. Edward Jenner

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

1. Morphine

2. Cocaine

3. Heroin

4. Penicillin

Answer: 4. Penicillin

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

1. Measles

2. Cancer

3. Heart stroke

4. Allergy

Answer: 1. Measles

(f) Cataract is a disease of:-

1. Ears

2. Nose

3. Eyes

4. Throat

Answer: 3. Eyes

(g) Infectious diseases can be prevented by:

1. Medicines

2. Proper food

3. Immunisation

4. Exercise

Answer: 3. Immunisation

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

1. Scurvy

2. Leukaemia

3. Goitre

4. Haemophilia

Answer: 4. Haemophilia

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

1. Thalassemia

2. Beriberi

3. Cataract

4. Diabetes

Answer: 3. Cataract

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

1. Vit B3

2. Vit B1

3. Vit.C

4. Vit D

Answer: 1.Vit B3

(k) Hay fever and asthma are

1. Deficiency diseases

2. Genetic diseases

3. Organic diseases

4. Allergy diseases

Answer: 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. Beriberi

2. Dermatitis

3. Night blindness

4. Scurvy

Answer: 3. Night blindness

II. Short Answer Questions:

Q1. 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.

Q2. What are communicable diseases?

Solution:

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

Q3. What is a deficiency disease?

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

Q4. 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.

B. Name the following:

(a) Viral disease caused due to unhealthy sexual contact

Solution: AIDS.

(b) A disease caused due to Plasmodium

Solution: Malaria.

(c) A disease caused by the bite of female Anopheles mosquito

Solution: Malaria.

(d) Two viral diseases caused by mosquito bites

Solution: Dengu, Chikungunya.

e) Any droplet – borne disease.

Solution: Amoebiasis, Cholera, Hepatitis A.

(f) A viral disease caused by the bite of a dog

Solution: Rabies/Hydrophobia

(g) A disease due to choking of coronary artery

Solution: Atherosclerosis

(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 the deficiency of nutrients or improper functioning of the body or genetic disorder, which is defined as the departure from actual health to illness 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 weaken 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 a vaccine. This produces antibodies in the body of the person and the person can be saved by these antibodies. Polio drops, tap vaccine for typhoid, BCG vaccine for tuberculosis are the examples of immunization.

Pathogens: Pathogens are germs that cause diseases to human beings and to other animals and plants. They spread the diseases from person to person or through the air or through 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 weakened disease-causing microbe into a body to stimulate the formation of antibodies and develop immunity to that 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.

C. 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 under secretion 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.

D. 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

E. 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.	Growth of hair, skin
(b) Vitamin	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	Sun light, milk, butter, fish liver oil, egg yolk	Controls calcium phosphorus metabolism.

II. Long Answer Questions:

Q1.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 a 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 as 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 frozen dried BCG vaccine for tuberculosis.

3. Living fully virulent germs: These virulent germs in small doses are introduced into the body as 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.

Q2. Describe the four ways in which communicable diseases are transmitted through various indirect methods.

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 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 the air may affect the healthy person when a person having cold sneeze. Tuberculosis passes from one person to others 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.

Q3. How does excess alcohol and drugs consumption affect human beings?

Answer: Alcohol consumption — Alcoholic drinks slow down brain activity and weaken its control system when taken in large quantities. It also damages the liver by causing liver cirrhosis.

Drug addiction — Narcotics such as cocaine, heroin, marijuana and opium are harmful substances that can lead to addiction. Once a person starts consuming drugs, a condition of either physical or

psychological dependence is produced. During physical dependence, the body requires a continuos supply of drug to be effective. This is called addiction. An overdose of drugs can severely depress the central nervous system with respiratory failure leading to death.

IV. Think and Answer:

Q1. It has been diagnosed that the body of a patient has lost the capacity to fight any infection. Name the disease he is suffering from. Which type of microbe is responsible for this disease? How could it have been prevented?

Answer: The disease he is suffering from is AIDS. This disease is viral disease caused by Human Immuno-deficiency virus. AIDS could have been prevented by:

- Screening of blood before transfusion.
- Avoiding sharing and reuse of blades, needles and syringes and surgical instruments.
- Avoiding pregnancy if mother is HIV positive.
- Safe sex.
- Educating people.

Q2. At a rural health centre, a nursing mother is given an immunization schedule for BCG and DPT to be given to her baby. What are the diseases against which the child will be protected?

Answer: The child will be protected against Tuberculosis by BCG vaccine. He will be protected against Diphtheria, Pertussis (whooping cough) and Tetanus by DPT vaccine.

V. Given a crossword puzzle. Read the clues across and clues downward, and fill up the blank squares. Check up your performance with the correct solution given at the end.

Clues across:

1. Category of pathogen that causes diseases, like common cold and mumps.

5. This is the vaccine for preventing tuberculosis.

6. An organ usually affected by tuberculosis.

7. Jumbled spelling of one of the most common insects which visits our exposed foods and contaminates them.

8. Cover this part of your body by a handkerchief while sneezing to prevent droplet infection to others.

9. These may readily grow in your hair, if you do not wash it regularly.

10. A disease that weakens body's defence system against infections.

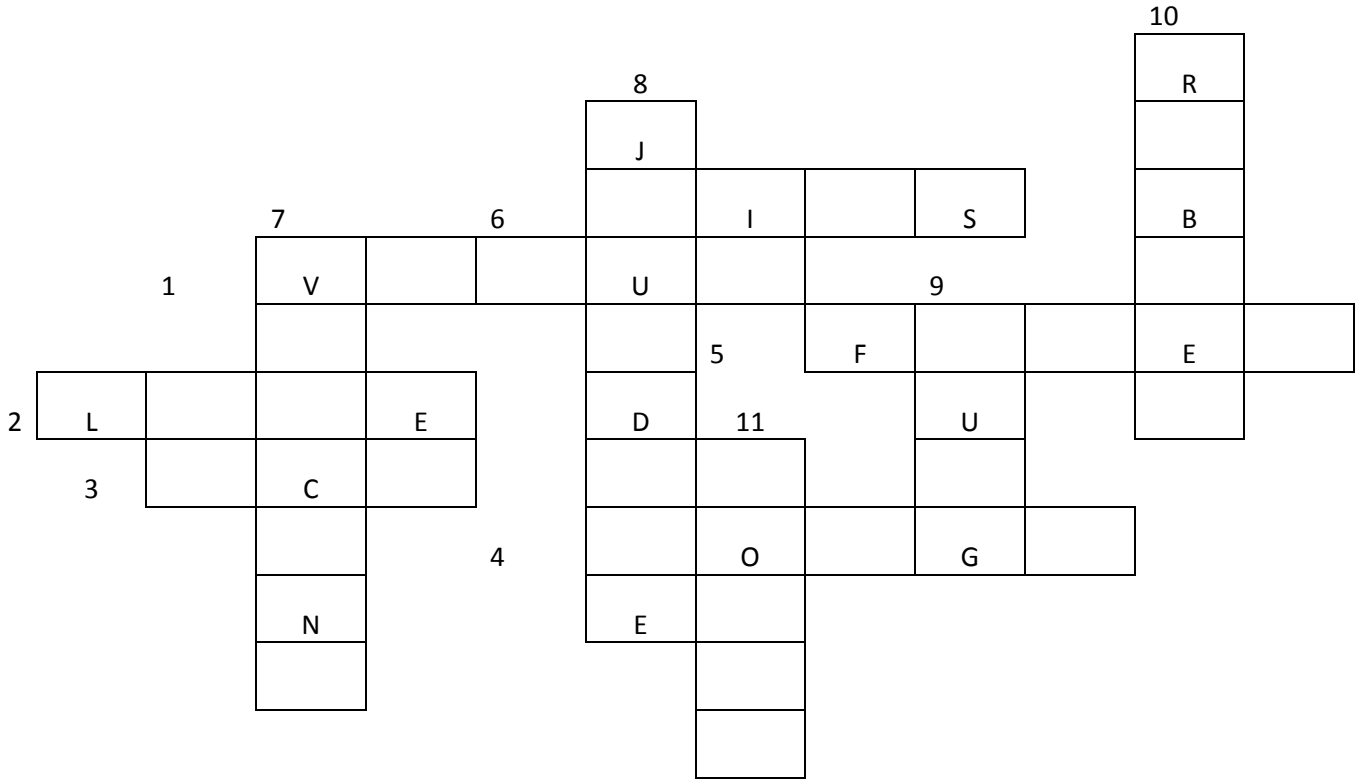
Clues down:

1. Germ or germ-substance introduced into the body to prevent occurrence of an infectious disease.

2. A disease caused by an infected dog, and which affects the central nervous system.

3. A disease in which the eyes, the skin and the urine turn yellow.

4. The disease pertussis is popularly known as whooping



Answer: