

2. Health and Diseases

Practice Questions

Q 1) Answers the following in brief.

1. Plague disease is caused by which bacteria? Write its symptoms and preventive measures.

Ans: 1) Plague disease is caused by the bacterium *Yersinia pestis*. This bacterium is caused by a flea on the rats named *Rattus Rattus*.

There are three types of Plague. 1) Bubonic Plague, 2) Septicemic Plague, 3) Pneumonic Plague

Symptoms – 1) Headache, pain in body, nausea, vomiting, muscle aches, swollen lymph nodes and clots in the armpit or neck. 2) Fever upto 38°C to 40°C. 3) Lung dermatitis, infection in blood.

Preventive measures – 1) Plague vaccine is given to prevent illness. 2) Antibiotics or sulfa drugs are given in the treatment

2. Pneumonia is caused by which bacteria? Write its symptoms and measures.

Ans: Pneumonia disease is caused by bacteria called *Streptococcus pneumoniae*. It spreads through air.

Symptoms – 1) Water accumulation in lungs. 2) Wheezing in the chest, chest pain. 3) Cold and fever upto 40°C 4) Difficulty in breathing and blood in saliva, etc.

Measures – Antibiotics are given in the treatment, vaccine is not available for pneumonia.

If pneumonia disease is caused by virus then it is called as SARS. Both lungs of some people get affected due to pneumonia and it is called as double pneumonia.

3. Tetanus disease is caused by which bacteria? Write symptoms and preventive measures of this disease.

Ans: Tetanus disease is caused by *Clostridium tetani* bacteria. This is the disease of nervous system.

Symptoms – 1) Decaying of wounds. 2) headache, weakness 3) difficulty in swallowing, fits, toothache, unconsciousness.

Preventive measures – 1) DPT vaccine is given for prevention of the disease DPT (Diphtheria, Tetanus and Pertussis) 2) TDAP vaccine (this vaccine is used for diphtheria, whooping cough and tetanus.) 3) Antibiotics and antitrust is given.

4. Leprosy disease is caused by which bacterium? Write its symptoms and preventive measures.

Ans: Leprosy:–This disease is caused by *Mycobacterium leprae* bacterium.

Symptoms: – 1) This disease affects skin and nerves. 2) The bacteria in patients body gets infected through discharge from body or after coming in contact with patients cloths, utensils orthrough air if they are living at same place. 3) Senseless patches/ scars are formed on skin due to this disease. 4) Skin thickens and small clots are formed on skin. 5) The leprosy bacteria reproduce very slowly. Cells are divided once in a two weeks soit takes 2 to 10 years for the disease to affect and see its symptoms.

Preventive measures – 1) BCG vaccine is given to prevent from this disease. Diamino Diphenyl sulphone (DDS), dapsone rifampicin, ethionamide are used. 2) In ayurvedic treatment, the oil made from bitter wood apple (achariaceae *hydnocarpus pentanda*) called chaulmoogra (*hydnocarpus wightianus*) is used.

5. Bird flu and swine flu are caused by which virus? Write its symptoms and preventive measures.

Ans: The influenza disease is caused by orthomyxo virus. This is a RNA virus.

1) Bird flu: Avian flu/ Bird flu is known by the name H₅N₁ or influenza type A. **Treatment:** Tamiflu medicine is given for Bird flu. **2) Swine flu (H₁N₁)** is caused due to H₁N₁virus, Influenza A virus.

Symptoms of bird flu and Swine flu:

1) Fever, cold, chills, sore throat, pain in muscles. **2)** Headache, cough, feeling weakness and restlessness. **3)** Sometimes nausea and vomiting happen.

Preventive measures – 1) Tamiflu vaccine or Relenza medicines are used.**2)** Influenza is airborne disease and trivalent influenza vaccine is used for its prevention.

6. Polio disease is caused by which virus? Write its symptoms and preventive measures.

Ans: Polio is caused by the polio virus orentero virus. This virus affects only human beings.

Symptoms-**1)** Fever, tiredness, nausea, headache, stiffness of the neck etc. **2)** Children are permanently disabled due to the effect on a central nervous system. **3)** The muscles becomes weak, becomes lazy, polio mainly affects children under 5 years of age.

Preventive measures- The polio vaccine is used as a preventive vaccine.

1) OPV (Oral Polio Vaccine) Sabin. 2) Salk

Children under 5 years of age are given OPV vaccine twice a year, it is called as Booster dose, and Salk is the vaccine given by IV and it is given once.

7. What is cancer? Write the types of tumours, causes of cancer and treatment methods.

Ans: The formation of clots or groups of unnecessary cells in any part of the body from the uncontrolled division of cells is called as Cancer.

Types of Tumour-

- 1) **Benign tumour:** This tumour does not affect other body parts.
- 2) **Malignant tumour:** This tumour affect the function of internal organs so this condition of cancer is also called as malignancy.

Causes of Cancer – 1) X – rays, radiations. 2) Chemical substance – The compounds such as arsenic, beryllium, cobalt, nickel, cadmium, chromium, asbestos, and benzene affects the Guanine nitrogen molecule present in DNA molecule. 3) Intake of tobacco, petrol, tar, nicotine in cigarette – bidi, etc. causes cancer. 4) Heredity, alcohol, asbestos, nickel, cadmium, uranium, benzene, radon, benzidine, etc. chemicals causes cancer.

Treatment – 1) Surgery, chemical medication/ chemotherapy. 2) Use of radiation/ radio therapy. 3) Use of rays, use of power (electrotherapy)

Examination - Biopsy is used.

8. Which diseases are caused by the lack of vitamin in our diet?

Ans: 1) **A (retinol)**– The lack of this vitamin causes xerophthalmia and night blindness disease.

2) **B₁ (Thiamine)**– lack of this vitamin causes beriberi disease.

3) **B₂(Riboflavin vitamin)**– lack of this vitamin causes stomatitis ulcerative, wounds in mouth, cracking of the skin, hair loss.

- 4) B₃(Niacin) – lack of this vitamin causes pellagra disease.
- 5) B₅ (Pantothenic Acid) – disease causing due to the lack of this vitamin normally does not appear in humans.
- 6) B₆ (Pyridoxine) – lack of this vitamin causes anemia.
- 7) B₇ (Biotin)– lack of this vitamin causes hair fall, skin cracks, swelling, etc.
- 8) B₉ (Folic acid)– lack of this vitamin causes megaloblastic anemia.
- 9) B₁₂ (cyanocobalamin) – lack of this vitamin causes blood pressure.
- 10) C (ascorbic acid)– lack of this vitamin causes scurvy disease.
- 11) D – lack of this vitamin causes– 1) In small children – rickets 2) Adults – Osteomalacia and osteoporosis.
- 12) E (Tokoferol)– lack of this vitamin causes sterility.
- 13) K (Phylloquinone)– lack of this vitamin causes bleeding and it appears mainly in small children.

9. Which diseases are caused by the lack of minerals in your diet?

Ans: a) Diseases caused by the lack of calcium – 1) There is no proper growth of bones and teeth. Osteomalacia, osteoporosis and rickets in small children are caused. 2) Poor blood clotting can occur.

b) Phosphorus (p) – 1) Failure in health of bones and teeth.

c) Iodine (I) – Mental and physical disability, goiter.

d) Iron (Fe) – Anaemia

e) Copper (Cu) – The number of leukocytes (white blood cells) decreases and is called as Leukopenia and also causes neurological diseases.

f) Sodium (Na) – Muscles become weak, causes paralysis and failure in the function of heart is seen.

g) Potassium (K) – Muscles become weak

10. Which diseases are caused by excessive use of minerals in our diet?

Ans: a) Calcium – 1) Kidney stone and hypercalciuria.

b) Phosphorus (p) – 1) Bones become weak.

c) Iodine (I) – 1) Hyperthyroidism.

d) Copper (Cu) – 1) Wilson's disease.

e) Potassium (k) – 1) Dehydration.

11. Write the reasons, symptoms and measures of chickenpox disease.

Ans: 1) Chickenpox disease is highly contagious viral infection. 2) It is caused by varicella zoster virus.

Symptoms– 1) Mainly this disease occurs in young children. 2) Red spots on skin, getting injuries. 3) This disease gets infected by fever, headache, sneezing, air, cough or contact with spots on skin.

Measures– 1) Paracetamol is used to reduce the fever. 2) There is no dedicated special vaccine for chickenpox and it does not repeat to the person, who has once suffered from chickenpox.

Q 2) Write a note.

1. Pulse Polio Campaign

Ans: In India, the 'Pulse Polio' campaign started in year 1994. The World Health Organization suggested Sabin vaccine for India.

Accordingly, in India, under the Pulse polio Vaccination Program from 1995-96 all children under age of 5 years are given vaccine twice a year. It is also known as Booster Dose, it contains weak live virus.

Salk vaccine is given through IV and it is given only once, it contains dead virus. In India, on 13 January 2011, last Polio victim was found in West Bengal and Gujarat but since then there wasn't any case in India. So on 27 March 2014, the World Health Organization declared India a polio free country.

2. Malnutrition

Ans: The pathogenic condition that results due to the lack of nutrients especially carbohydrates, proteins and fats in diet is called as Malnutrition.

The two pathogenic conditions found due to lack of proteins are:

1) **Marasmus**– This condition is found in children under one year of age. the muscles below the skin are decayed so only skeleton is seen. In this situation, the rate of mental as well as physical development slows down.

2) **Kwashiorkor**– This condition is caused by severe protein deficiency among children between the ages of 1 to 3 years. It looks like the eyes have come out and the size of the stomach increases. Bones of the feet bend and physical and mental growth decreases or slows down.

3. WHO means what? When and where was it established?

Ans: WHO means World Health Organization. This organization was established on 7 April 1948 in Geneva.

Q 3) Answer in one sentence.

1. DOTs means what?

Ans: DOTs means Directly Observed Treatment Short Term Course and this treatment is given for the tuberculosis disease.

2. Which cells are destroyed in diabetes disease?

Ans: Beta cells are destroyed in diabetes disease.

3. Which virus lead to the spread of dengue in Mumbai ?

Ans: In Mumbai, dengue was spread because of DEN-3 virus.

4. What causes cancer?

Ans: Cancer causes fruits and leafy vegetables are not involved in daily diet.

5. Which are the organizations doing work related to the AIDS?

Ans: The organizations doing work related to AIDS are – 1) National AIDS Control Program. 2) UNAIDS.....

6. What is considered as the best donation?

Ans: Blood donation and Eye donation is the best donation.

7. How does rabies virus enter the brain?

Ans: The rabies virus enter the brain through nervous system.

8. Write the work of pancreas.

Ans: The discharge of pancreas juice from pancreas helps in the digestion of food and the sugar content is kept in control due to insulin in it.

9. Which tissues in the body are affected by cancer ?

Ans: Cancer can cause to lungs, mouth, tongue, gastric, breast, uterus, skin or blood in the body.

10. Which day is observed as World Rabies Day?

Ans: 28 September is the day which is observed as World Rabies Day.

Q 4) Write true or false.

1. Rabies is an infectious disease.

Ans: False (rabies is a viral disease)

2. 14 November is celebrated as World Diabetes Day.

Ans: True

3. The infectious disease called dengue is spread by anopheles mosquitoes.

Ans: False (the infectious disease called dengue is spread by aedesaegypti mosquitoes)

4. India has the lowest diabetes ratio in the world.

Ans: False (India has the highest diabetes ratio in the world)

Q 5) Match the appropriate pairs.

Group A	Group B
1. Encephalitis	Bone joints
2. Pleurisy	Teeth – gums
3. Rheumatism	Brain
4. Pyria	Legs
5. Gangrene	Chest

Ans: - 1. Encephalitis – Brain

2. Pleurisy – Chest

3. Rheumatism – Bone joints

4. Pyria– Teeth – gums

5. Gangrene– Legs

Q 6) Fill in the blanks with appropriate word.

1. It is difficult to swallow in _____ disease.

Ans: Rabies

2. Scabies disease is caused by the external parasite called _____.

Ans: Sarcoptes scabiei

3. In 2009, _____ country was affected by swine flu disease.

Ans: Mexico

4. ORS means _____.

Ans: Oral Rehydration Solution

5. Cockroach can be the carriers of _____ bacteria.

Ans: Typhoid

6. In country like America, _____ of generic medicines are used.

Ans: 80%

7. _____ is an important medicine used in anti-tuberculosis medicine used.

Ans: Isoniazid