





# ZOOLOGY

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## BIOLOGY IN HUMAN WELFARE





## VERY SMALL ANSWER QUESTION

1. Distinguish between biological vector and mechanical vector.

**Ans:**

**Biological vector:** The parasite undergoes some part of development in it.

**E.g.:** Female Anopheles mosquito in case of Plasmodium.

**Mechanical vector:** It transfers the infective stages of parasite which do not develop in it.

**E.g.:** House flies in case of Entamoeba



## VERY SMALL ANSWER QUESTION

2. What is hyper parasite? Give an example.

**Ans:**

It is a parasite living in the body of another parasite.

E.g.: **Nosema notabilis** lives as a hyper parasite in **Sphaerospora** polymorpha which lives as a parasite in urinary bladder of **toad fish**



## VERY SMALL ANSWER QUESTION

**3. What do you mean by parasite castration? Give one example.**

**Ans:**

Some parasites destroy the gonads of host and make it sterile.

E.g.: Sacculina degenerates the ovaries of crab (carcinus maenas)



## VERY SMALL ANSWER QUESTION

### 4. Define neoplasia. Give one example

**Ans:**

Some parasites cause growth of host cells and develop cancers in host. This effect is neoplasia.

E.g.: many viruses cause cancer





## VERY SMALL ANSWER QUESTION

5. Distinguish between infectious and non – infectious diseases.

Give two examples each

**Ans:**

Infectious diseases are caused by parasites. They spread from one person to another.

E.g.: Ringworm, typhoid

Non – Infectious diseases do not spread from one person to another.

E.g.: Cancer, kidney problems



## VERY SMALL ANSWER QUESTION

**6. Entamoeba histolytica is an obligatory anaerobe justify.**

**Ans:**

Entamoeba histolytica always respire anaerobically due to absence of mitochondria even though oxygen is available

Rizee





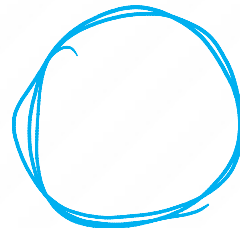
## VERY SMALL ANSWER QUESTION

7. Distinguish between precystic stage and cystic stage of Entamoeba

Ans:

**Precystic stage:** It is a oval, non – motile form without a cyst wall. It has the reverse food glycogen and chromatoid bodies.

**Cystic stage:** It is a rounded form with a protective cyst wall. It has 4 nuclei.





### VERY SMALL ANSWER QUESTION

**8. A person is suffering from bowel irregularity, abdominal pain, blood and mucus in stool. Based on these symptoms name the disease and causative organism.**

**Ans:**

The disease is amoebic dysentery. It is caused by Entamoeba histolytica.



## VERY SMALL ANSWER QUESTION

**9. Define asymptomatic cyst passers with reference to Entamoeba.**

**Ans:**

The symptoms of amoebiasis are not seen in some people. But they spread the disease by passing the cysts in faeces.



## VERY SMALL ANSWER QUESTION

**10. Define prepatent period. What is its duration in Plasmodium vivax?**

**Ans:**

The time between entry of sporozoites into blood and its reappearance in blood as cryptozote is prepatent period. It is 8 days in P.Vivax.



## VERY SMALL ANSWER QUESTION

11. Define incubation period. What is its duration in *Plasmodium vivax*

**Ans:**

The time between entry of *Plasmodium* into blood and first appearance of malarial symptoms in incubation period. It is 10 to 14 days.



## VERY SMALL ANSWER QUESTION

**12. What are Schuffner's dots? What is their significance?**

**Ans:**

They are red coloured granules that appear in the cytoplasm of RBC.

They are the antigens produced by amoeboid stage of Plasmodium.



## VERY SMALL ANSWER QUESTION

**13. What are Haemozoin granules? What is their significance?**

**Ans:**

It is the malarial pigment produced by Plasmodium from haem of hemoglobin in RBC. It causes malaria.

 Rizee



## SHORT ANSWER QUESTION

### 1. Explain the pathogenicity of *Wuchereria bancrofti* in man?

**Ans:**

1. Wuchereria bancrofti causes filariasis in human beings.
2. Light infection causes filarial fever which is characterized by headache, mental depression and increase in the body temperature
3. In general, the infection of filarial worm causes inflammations. Inflammation in the lymph vessels is called **lymphangitis**. Inflammation in the lymph glands is called **lymphadenitis**





## SHORT ANSWER QUESTION

4. In case of heavy infection, dead filarial worms accumulate in the lymph vessels and lymph glands and cause immense swelling. This condition is called **lymphoedema**. This condition can be observed in the extremities of limbs, scrotum in males and mammary glands in females.
5. In these tissues, fibroblasts accumulate and form the fibrous tissue. In severe cases, the sweat glands of the skin in the affected regions disintegrate and the skin becomes rough. This condition is called **Elephantiasis**.



## SHORT ANSWER QUESTION

2. Write short notes on typhoid fever and its prophylaxis?

Ans:

**Typhoid fever:**

1. It is caused by Salmonella typhi which is a gram negative bacterium.
2. It mainly lives in the small intestine of man and then migrates to other organs through blood.
3. Typhoid can be confirmed by Widal test.



## SHORT ANSWER QUESTION

**Mode of infection:** Contamination through food and water.

**Symptoms:** Sustained fever with high temperature up to 104 °F weakness, stomach pain, constipation, headache and loss of appetite. Intestinal perforation and death may also occur in severe cases.

**Prophylaxis:** The following hygienic habits help to prevent spread of this disease:

- i. Using boiled and filtered water.
- ii. Washing hands, fruits and vegetables properly
- iii. Using septic tank toilets



## SHORT ANSWER QUESTION

3. Write short notes on pneumonia and its prophylaxis?

Ans:

**Pneumonia:**

1. It is bacterial disease.
2. It is caused by gram positive bacteria such as **Streptococcus pneumoniae** and **Haemophilus influenzae**. They infect the alveoli of lungs in human beings.



## SHORT ANSWER QUESTION

**Mode of infection:** Contamination by inhaling the droplets released by an infected person or even by sharing the utensils with an infected person.

**Symptoms:** The alveoli get filled with fluid leading to severe problems in respiration. In severe cases, the lips and finger nails may turn Gray to bluish in colour.

### **Prophylaxis:**

- i. Persons must use masks in the areas where the infected persons live.
- ii. Utensils used by the infected persons must be avoided / must be boiled before usage.



## SHORT ANSWER QUESTION

4. Write short notes on common cold and its prophylaxis?

**Ans:**

**Common cold:** It is caused by Rhino group of viruses. They infect nose and respiratory passage but not lungs

**Mode of infection:** Contamination by direct insulation of the droplets resulting from cough or sneezes of an infected person or indirectly through contaminated objects such as pens, books, cups, door – knobs, computer keyboard or mouse etc.



## SHORT ANSWER QUESTION

**Symptoms:** Nasal congestion, discharge from nose, sore throat, hoarseness, cough, headache, tiredness, etc., which usually last for 3 – 7 days.

**Prophylaxis:**

- i. Persons must use masks in the areas where the infected persons live.
- ii. Materials / objects used by the infected persons must be avoided
- iii. Before drinking the water should be boiled, cooled and filtered.





**THANK YOU**

