

QB365 Question Bank Software Study Materials

Zoology - Human Health and Diseases Important 2 Marks Questions With Answers (Book Back and Creative)

12th Standard

Biology

Total Marks : 40

2 Marks

20 x 2 = 40

1) What are interferons? Mention their role.

Answer : Interferons: These are the proteins made and released by host cells in response to the presence of pathogens such as viruses, bacteria, parasites etc

Role: They inhibit viral infections and stimulate the entire immune system to fight disease. They also regulate many kinds of cell functions

2) List out chemical alarm signals produced during inflammation.

Answer : (i) An infection or tissue injury usually causes redness (ruber), swelling (tumor), pain (dolor). and production of heat (color) that may result in fever

(ii) Such localised expression is called inflammatory response, which occur due to release of certain chemical alarm signals such as histamine and prostaglandins.

3) A person is infected by HIV. How will you diagnose for AIDS?

Answer : (i) A simple blood test is available that can determine whether the person has been infected with HIV.

(ii) The **ELISA test** (Enzyme Linked ImmunoSorbent Assay) detects the presence of HIV antibodies.

(iii) It is a preliminary test. **Western blot** test is more reliable and a confirmatory test.

(iv) It detects the viral core proteins. If both tests detect the presence of the antibodies, the person is considered to be HIV positive.

4) Autoimmunity is a misdirected immune response. Justify.

Answer : Autoimmunity is due to an abnormal immune response in which the immune system fails to properly distinguish between self and non-self and attacks its own body. Our body produces antibodies (**autoantibodies**) and **cytotoxic T cells** that destroy our own tissues. If disease-state results, it is referred to as auto-immune disease.

Thus, autoimmunity is a misdirected immune response. Eg., Rheumatoid arthritis and multiple scleroids

5) Name the causal agent of swine flu. Mention two symptoms.

Answer : Causal agent of swine flu HI N1 virus strain Symptoms sore throat, fever, cough, body ache and weakness.

6) What is a digenic organism?

Answer : (i) An organism which completes its life cycle in two hosts is said to be digenic,

(ii) **Eg.** plasmodium vivax which causes malaria is a digenic parasite invading man as secondary host and female Anopheles mosquito as primary host.

7) Name any two fungal disease and helminthic disease.

Answer : **Fungal disease:** Candidiasis, Athlete's foot

Helminthic disease: Ascariasis, Filariasis

8) Name the causative agent and confirmatory test for Typhoid.

Answer : Typhoid is caused by Salmonella typhi. Widal test can be done to confirm typhoid

9) Write any two differences between CMI and AMI

Answer :

CELL MEDIATED IMMUNITY	ANTIBODY MEDIATED
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	(CMI)	IMMUNITY (AMI)
a.	In CMI, pathogens are destroyed by cells without producing antibodies.	In AMI, pathogens are destroyed by antibodies.
b.	It is carried out by T cells, Macrophages NK cells	It is carried out by B cells, T helper cells, APC cells

10) How many dendritic cells are identified? Name them

Answer : Four types of dendritic cells are known. They are Langerhans, interstitial cells, myeloid and lymphoid cells.

11) On which basis, the antibodies are classified? Name them.

Answer : The antibodies are classified into five major categories, based on their physiological and biochemical properties. They are IgG (gamma), IgM(mu), IgA (alpha), IgD(delta) and IgE (epsilon).

12) Define allergy and allergen

Answer : The exaggerated response of the immune system to certain antigens present in the environment is called allergy (allo-altered, erg-reaction). The substances to which such an immune response is produced are called allergens.

13) What is Anaphylaxis?

Answer : Anaphylaxis is the classical immediate hypersensitivity reaction. It is a sudden, systematic, severe and immediate hypersensitivity reaction occurring as a result of rapid generalized mast-cell degranulation.

14) What do you mean by drug abuse?

Answer : The intake of certain drugs for a purpose other than their normal clinical use in an amount and frequency that impair one's physical, physiological and psychological functions is called drug abuse.

15) Name any 4 natural cannabinoids

Answer : Marijuana, Ganja, Hashish, and Charas.

16) Mention any four characteristic symptoms of dengue fever.

Answer : High fever Skin rashes, Muscle and joint pain, decrease in platelet count of blood are the characteristic symptoms of dengue fever.

17) Name the host and the site where the following occur in the life cycle of a malarial parasite.

- (a) Formation of gametocytes
- (b) Fusion of gametocytes

Answer : (a) Human beings in the erythrocytes (RBCs).
(b) Mosquito, in the stomach.

18) Give short notes about Nipah virus.

Answer : (i) Nipah virus is a zoonotic virus (transmitted from animals to humans) and also transmitted through contaminated food.
(ii) In infected people; it causes a range of illness from asymptomatic infection to acute respiratory illness and fatal encephalitis.

19) Which category of adaptive immunity is provided by vaccination? Why?

Answer : Active immunity, it is called so because the antibodies are developed by the vaccinated persons of their own cells in response to the antigens.

20) Name the secondary lymphoid organ of human intestine.

Answer : (i) Peyer's patches are oval-shaped areas of thickened tissue that are embedded in the mucus-secreting lining of the small intestine of humans and other vertebrate animals.
(ii) Peyer's patches contain a variety of immune cells, including macrophages, dendritic cells, T cells, and B cells.