

Class: XIIth Date:

**Solutions** 

Subject : BIOLOGY

**DPP No.: 4** 

# **Topic :- Human Health & Disease**

1 **(b)** 

Leprosy is a bacterial disease, which is caused by *Mycobacterium leprae*.

2 **(d** 

Excessive doses of drugs may lead to coma and death due to respiratory failure, heat failure, cerebral hemorrhage, etc.

4 (a)

Hodgekins disease is a cancer of lymphoid tissue.

5 **(b)** 

Interferons are the glycoproteins with low moleculer weight that are effective against most of the viruses. These are naturally produced by virus infected cells. These proteins interact with adjacent cells and make them resistant to virus attack. Now-a-days, interferons are also being manufactured through genetic engineering and are used in many antiviral drugs.

6 **(b)** 

Species of *Lactobacillus str<mark>eptococcus</mark>, Micrococcus* and *Proteus* are responsible for spoilage of milk products. The exotoxins produced by these bacteria causes food poisoning.

7 **(a)** 

Acquired immunity is not present from the birth and develops during the individual's lifetime. It is pathogen specific

8 **(b)** 

Immunoglobulins are present in serum and provide immunity to body against diseases. Each immunoglobulin is made up of four polypeptide chains-two heavy weight chains and two light weight chains. These chains are joined to each other by disulphide bonds.

9 **(d)** 

AIDS is diagnosed by ELISA test - Enzyme - Linked Immuno Sorbant Assay test

10 **(d)** 

Transgenic animals that produce useful biological products can be created by the introduction of the portion of DNA (or genes) which codes for a particular product such as human protein,  $\alpha-1$  — antitrypsin. The protein is used to treat emphysema.

11 **(b)** 

Acquired immunity is specialized immunity that forms antibodies and activated lymphocytes that attacks and destroys the specific organism. These are of two type, *i.e.*, humoral immunity and cell mediated immunity. Humoral system involves antibodies and cell mediated system involves T-cells.

#### 12 **(d)**

Myasthenia gravis is an autoimmune disease characterized by the chronic fatigability and weakness of muscles, espeically in the face and throat, as result of defect in the conduction of nerve impulses at the myoneural junction.

## 13 **(c)**

In AIDS, HIV (Human Immunodeficiency Virus) attacks the cells of the immune system. The immune system weakens no that the body cannot defined against various bacteria, viruses and other germs

#### 14 **(d)**

Immuno-modulators are natural or synthetic substances that help to regulate or normalize the immune system. There are two types of immuno-modulators *viz*, immuno-suppressants, which cause immuno-suppression of the immune system and immuno-stimulants (immuno-stimulators) which stimulate immune system by including or increasing activity of any of its components.

## 15 **(c)**

The disease filaria (elephantiasis) is transmitted by *Culex* mosquito (female). *Wuchereria bancrofit* causes filariasis.

### 16 **(d)**

Immune system is unique in the sense that it recognizes foreign antigens, responds to these and remembers them. The immune system also plays an important role in allergic reactions, auto-immune diseases and organ transplantation

#### 17 **(a)**

The most important antigens for causing graft rejection are a complex called HLA Humman Leucocyte Antigen(protein). The HLI occur on the white blood cells as well as on the tissue cells.

## 18 **(c)**

The juice of roasted leaves of *Aloe vera* taken with honey is good to cure cough and cold.

#### 19 **(a)**

When a host is exposed to antigens which may be in form of living or proteins, antibodies are produced in the host body. This type of immunity is called active immunity

## 20 **(c)**

Measles is a viral disease caused by rubeola virus. Intereferons are proteins that increase the resistance of a cell to attack by viruses by unmasking genes that synthesize antiviral proteins. Thus, person suffering from measles shows the production of interferons in his body.

ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	В	D	В	A	В	В	A	В	D	D
Q.	11	12	13	14	15	16	17	18	19	20
A.	В	D	C	D	C	D	A	C	A	С

