

Topic :- Human Health & Disease

- 1 **(d)**
The substance, which produces immune response in an individual are called allergens, *e.g.*, pollen grains, animal dander, dust, feathers, drugs like penicillin, etc.
- 2 **(a)**
A-Diacetyl morphine; B-Acetylation of morphine
- 3 **(c)**
Microsporum is a genus of fungi that causes tinea capitis, tinea corpus, ringworm, and other dermatophytoses (fungal infections of the skin)
- 4 **(d)**
Genes that induce cellular proliferation are called proto-oncogenes. The proto- oncogenes encode for growth factors, growth factor receptors, transcription factors, etc. They change into **oncogene** or cancer genes.
- 6 **(a)**
Malthus calculate that though the number of organisms can increase geometrically (1, 2, 4, 8, 16,.....), their food supply increases arithmetically (1, 2, 3, 4,....).
- 7 **(b)**
Immunosuppressants are the drugs capable of inhibiting the body's immune system, *e, g.*, cyclosporine and endosporins, which cause suppression of body's T-lymphocytes.
- 8 **(b)**
Emphysema is a chronic disease in which alveolar walls are damaged due to which respiratory surface is decreased. One of the major causes of this is cigarette smoking. Emphysema is included in a group of diseases called **chronic obstructive pulmonary disease** (COPD) pulmonary to lungs.
- 9 **(c)**
Tumour cells have been shown to avoid detection and destruction by immune system. Therefore the patients are given substances called biological response modifiers such as α -**interferon**, which activates their immune system and helps in destroying the tumours
- 10 **(b)**
In MRI, the body's water molecules are used for the base of images.
- 11 **(d)**
At the tip of each arm of the Y-shaped molecule is an area called the antigen binding site, which is formed by a portion of the heavy and light chains. Every immunoglobulin molecule has at least two of these sites, which are identical to one another

- 12 **(a)**
True. Amoebiasis infection is typically caused by the organism *Entamoeba histolytica*, by ingesting food or water contaminated by infected faeces
- 13 **(a)**
The synthetic drugs structurally similar to adrenaline are amphetamines. These are synthetic drugs and act as strong stimulants. These are generally taken by truck drivers and night workers.
- 14 **(c)**
The B-lymphocytes produce an army of proteins in response to pathogens into our blood to fight them. These proteins are called antibodies. The T-cells themselves do not secrete antibodies but help B-cells to produce them
- 15 **(a)**
Cannabinoids can be extracted from the dried, seedless inflorescence of female *Cannabis* plants
- 16 **(a)**
An allergen is any substance (antigen), most often eaten or inhaled, that is recognized by the immune system and causes an allergic reaction
- 17 **(a)**
Immunoglobulin G (IgG) is the most abundant class of antibodies found in blood serum and lymph and active against bacteria, fungi, viruses and foreign particles. The basic structure of all Ig is same, *i. e.*, made up of light and heavy polypeptide chains, still they behave differently in similar physiological system. IgG possesses four polypeptide chains linked by disulphide bonds.
- 18 **(b)**
Leishmania donovani is an intracellular parasite in leucocytes or cells of liver, spleen, bone marrow, lymphatic glands, etc. It causes a serious oriental disease known as 'Kala-azar' accompanied by –swellings, fever, enlargement of liver and spleen, the skin colour turning black.
- 19 **(a)**
Cell-mediated immune response is mediated by T-lymphocytes. It is responsible for graft rejection in organs transplant because of its ability to differentiate between 'self' and 'non-self'
- 20 **(d)**
Epilepsy is second common neurological disorder. A number of tests to confirm the diagnosis of epilepsy are electroencephalography, brain imaging like CT-scan, MRI, PET and blood tests.

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

PE