

Class: XIIth Date:

**Solutions** 

Subject : BIOLOGY

**DPP No.: 3** 

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

## 1 **(b)**

Oriental sores or skin boils or Delhi boils is a skin disease caused by a protozan *Leishmania orientalis* ( or *L. tropica*). It is spread by sand fly.

# 2 **(d)**

A graphic record of spread of the cardiac impulse through the heart is called electrocardiogram. The machine by which the electrocardiogram is recorded is known as **cardiograph Willen Einthoven** (1903) is considered 'Father of Electrocardiography'.

3 **(d)** 

Physical barriers: skin on our body is the main barrier, which prevents entry of the microorganisms. Mucous coating of the epithelium lining in the respiratory, gastrointestinal and urogenital tracts also helps in trapping the microbes entering our body

4 (c)

Powder cocaine (also called coke) and crack are all powerful stimulants, with short-lived effects. They temporarily speed up the way your mind and body work, but the effects are short-lived

5 **(d)** 

Immunity is the state of living beings having sufficient biological defences to avoid infections, diseases or other unwanted biological invasion

6 **(d)** 

In ECG, **P-wave** indicates impulse of contraction generated by SA-node and it spreads in atria causing atrial depolarisation. **T-wave** is the most constant and conspicuous wave having the tallest amplitude. It is the first positive deflection during ventricular depolarization.

**S-wave** is the next downward deflection constant but often inconspicuous.

**T-wave** is repolarization wave of ventricular relaxtion.

7 **(a)** 

Thymus is the "seedbed" of thymic lymphocytes (T-lymphocytes). Some stem cells in the bone marrow give rise to immature lymphocytes. These lymphocytes migrate *via* the blood to the thymus, where they mature as T-lymphocytes, and produce cell-mediated immunity. Thus, damage to thymus in a child may lead to loss of cell-mediated immunity.

8 (a)

**Tubectomy** is the method of female sterilization, which involves cutting and tying (tubal ligation) of fallopian tubes. It prevents fertilization.

9 **(d)** 

Antibodies are the proteins (glycoprotiens) called immunoglobulins. These are produced by the

lymphocytes in response to entry of a foreign substance or antigen into the body.

### 10 **(d)**

T-lymphocytes are involved in cell mediated immunity. T-cells largely recognize proteins that have been processed within antigen presenting cells and presented on the cell surface in a form that is bound to a molecule known as **Major HistocompatibilityComplex**(MHC).

#### 11 (a)

Cancer cells do not respond to control mechanisms and do not show contact inhibition (differing surface proteins.). These cells proliferate in an unregulated manner and from clones of cells which can expand irregularly.

# 12 **(c)**

Heroin is a white or brown powder, odourless, bitter, crystalline compound. It can be mixed with water and injected with a needle. Heroin can also be smoked or snorted up the nose

#### 13 **(a)**

**Stimulants** are also known as mood elevators. They increase nerve activity in the brain by initiating the release of noradrenaline, *e.g.*, amphitamines, caffeine, cocaine, etc.

### 14 **(d)**

The drugs, which are commonly abused are opioids, cannabinoids and coca alkaloids LSD. Majority of these are obtained from flowering plants. Some are obtained from fungi

# 15 **(c)**

The primary lymphoid organs are bone marrow and thymus where immature lymphocytes differentiate into antigen-sensitive lymphocytes. After maturation the lymphocytes migrate to secondary lymphoid organs like spleen, lymph nodes, tonsils, Peyer's patches of small intestine and appendix. The secondary lymphoid organs provide the sites for interaction of lymphocytes with the antigen, which then proliferate to become effector cells

# 16 **(b)**

Hippocrates is known as the father of medicine because many of the things he discovered are still practiced today

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

Brain is not involved in the elicitation of immune response, it is a part of central nervous system.

#### 18 **(a)**

Vaccine is a preparation containing dead or inactivated viruses or other microorganisms that on introduction in human body stimulate the formation of antibodies to fight against disease. First vaccine was prepared by Edward Jenner against cowpox.

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

Tuberculosis, commonly called TB is caused by a rod-shaped bacterium named *Mycobacterium tuberculosis*.

# 20 **(b)**

Amoebic dysentery is caused by an intestinal endoparasite, *Entamoeba histolytica*, found in large intestine of humans. Infection takes place through contaminated food and water

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

