DPP
DAILY PRACTICE PROBLEMS

Class : XIth
Date :

Solutions

Subject : BIOLOGY
DPP No. : 8

Topic :- Structural Organisation in Animals

1 **(d)**
When a neuron is suitably stimulated, an electrical disturbance is generated which travels along its plasma membrane. Arrival of the disturbance at the neuron's ending, triggers the events that may cause the stimulation of adjacent neurons and other cells

2 **(c)**
The abdomen in both males and females cockroaches consists of 10 segments

3 **(d)**
Lymphocyte is a type of agranular leucocyte formed by lymph gland and lymph node.
Mast cells are cells of connective tissue, modified from basophil of blood and secrete histamine, serotonin and heparin.
Plasma cells are cells of connective tissue, which synthesize antibodies.

4 **(d)**
The dense connective tissue is elastic and contains abundant yellow elastin fibres. 'Provide toughness and strength' is not characteristic of yellow fibres of connective tissue.

5 **(a)**
A single female genital pore is present in the mid-ventral line of 14th segment of human

6 **(a)**
A-Collagen, B-Chondrocyte

7 **(c)**
Ciliated epithelium consists of the cells that bears cilia on their free surface. Their function is to move the particles or mucous over the epithelium in a specific direction. They are mainly found in the inner surface of the hollow organs like bronchioles and Fallopian tubes

8 **(d)**
Process of formation of blood clot is also known as blood coagulation. This process can be described under four major stages.

1. Damaged platelets or tissue cells release thromboplastin.

2. Prothrombin $\xrightarrow{Ca^{2+}\downarrow}$ Thrombin

3. Fibrinogen $\xrightarrow{Ca^{2+}}$ Fibrin

4. Fibrin + cells → Clot

Thrombocytes help in blood coagulation.

9 **(a)**

The entire body of a cockroach is covered by hard chitinous exoskeleton or cuticle, which is brown in colour. Main function of the exoskeleton is to prevent the loss of water from the body

10 **(a)**

Cardiac muscle tissue is a contractile tissue present only in the heart

11 **(a)**

The skin of frog is naked (*i.e.*, without scales or feathers), smooth and slippery due to presence of sac-like mucous gland that discharge slimy mucous onto the surface by ducts passing through the epidermis

12 **(a)**

The frog is a cold-blooded animal, *i.e.*, its body temperature changes with the temperature of the surrounding environment (Poikilothermic). In winters the body temperature of frog falls considerably.

This make it inactive and may result in death. To avoid this, during this period it does not show any movement and respires through the skin. In hot summers, also it burries itself in the mud at the bottom of pond and respire through skin. When water recollects in the pond the frog again becomes active. The winter activity is called hibernation while summer activity is called estivaion

13 **(d)**

Each body segment, except the first, last and clitellum, bears in it a middle ring of small chitinous bristles called setae. It helps in locomotion

14 **(d)**

Tendons are modified white fibrous tissue, in which, white fibres occurs in thick parallel bundles. They connect muscle to bone, *e.g.,* Achilles tendon. It is the strongest and thickest tendon in the body and connects gastrocnemius (calf) muscle to bones.

15 **(c)**

A-Anterior aorta or dorsal blood vessel or heart

B-Alary muscles

C-Chambers of heart

16 **(c)**

Earthworm shows adaptations mainly for burrowing and survival. It has an ability to push its way through the soft soil and to eat its way through the hard soil. Thus ensures its efficiency under both type of soil conditions

17 **(b)**

Endocrine glands.

Endocrine glands do not have ducts and hormones are the product of this gland, which are secreted directly into the fluid bathing the gland

18 **(b)**

They receives and store spermatozoa during copulation.

Four pair of spermathecae are located in 6th to 9th segments (one pair in each segments) of the earthworm. They receives and store spermatazoa during copulation

19 **(b)**

In the exoskeleton of the cockroach, sclerites are joined to each other by arthrodial membranes

to allow movements

20 **(b)**

Skeletal muscles are voluntary in their action, *i.e.*, we can move them according to our will walls of the blood vessels contains epithelial tissue not skeletal muscles

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