DPP
DAILY PRACTICE PROBLEMS

Class : XIth
Date :

Solutions

Subject : BIOLOGY
DPP No. : 1

Topic :- Structural Organisation in Animals

1 **(a)**
Crop is a sac-like structure present in the alimentary canal of cockroaches and is used for storing food

2 **(b)**
Pharyngeal nephridia are present as three paired tufts in the segments 4th, 5th, 6th. They discharge excretory matter into the gut (buccal cavity and pharynx) by these paired ducts

3 **(b)**
Three types of junctions found in the epithelium and other tissues are tight junctions, adhering junctions and gap junction

4 **(d)**
In cockroach, the sense organs are antennae, eyes, maxillary palps, labial palps, anal cerci etc.

5 **(c)**
Ferritin is an iron-storing protein found especially in spleen, liver and bone-marrow. Iron, in the form of Fe^{3+}, is made available when required for haemoglobin synthesis.

6 **(d)**
Leucocytes (WBC) can squeeze through pores of thin capillary wall to wander about in tissue. This phenomenon is termed as **diapedesis**.

7 **(a)**
The fibroblasts are the principle cells of the areolar tissue. They are large, flat, stellate cells with long processes and oval nucleus. They secrete matrix and the material of which, the fibres are formed

8 **(c)**
The hypopharynx is a median tongue like, chitinous structure with two pointed lobes

9 **(d)**
The frog have the ability to change the colour to hide them from their enemies. This protective colouration is called camouflage

10 **(a)**
Agranulocytes formed in spleen and lymph nodes are non-granular white blood cells that contain non-lobulated nuclei. These from about 35% of total leucocytes $(3.5 \times 10^9$ per litre). These are of two types-monocytes and lymphocytes.

11 **(b)**
Connection is not the function of epithelium tissue. It is the function of connective tissue

12 **(b)**
The arthrodial membrane between the 5th and 6th abdominal terga is depressed to form a

stink gland. These glands produces a secretion that gives a stinky smell

13 **(b)**

Animal tissues are categorised into four basic types on the basis of their structure and function

14 **(b)**

The number of vasa efferentia that arises from the testes in frog's male reproductive system is 10-12. They enter the kidneys on their sides and open into the Bidder's canal and finally, it communicates with the urinogenital duct that comes out of the kidneys and opens into the cloaca

15 **(b)**

Neutrophils are the most abundant, most active type of granular WBC_S. Nucleus has 5-lobes. They are phagocytic.

Eosinophils are granular WBC_S with bilobed nucleus.

Lymphocytes and **monocytes** are agranular WBC_S.

16 **(c)**

Tendons connects muscle to bond and ligaments connects bone to bone

17 **(a)**

Haemocytometer is an instrument used to determine cell or spore counts such as RBC_S.

18 **(a)**

Saccular glands have wide, spherical, secretory part called acinus. They may be simple or compound. The simple saccular glands may be branched or unbranched. A compound saccular gland consists of several lobules, each having many acini.

The acini of a lobule opens by short ductules into a common duct that discharge into the main duct of the glands. The oil glands in the human skin are simple, branched and saccular whereas, milk glands of humans are compound and saccular

19 **(a)**

Tendons connects muscles to bones

20 **(b)**

Leucocytes or white blood corpuscles are colourless blood cells. These are of two types on the basis of presence or absence of granules in cytoplasm :

Granulocytes : Granules are present in cytoplasm of granulocytes.

Name of granulocyte	Eosino -phils	Basop- hils	Neutr- ophils
Percentage (%)	1-5%	0.5 - 2.7 %	60 - 70%

Agranulocytes : Granules are absent in cytoplasm of Agranulocytes.

Name of Agranulocyte	Lympho -cytes	Monocytes
Percentage (%)	20 - 40%	2 - 7%

So, maximum numbers of leucocytes are neutrophils.

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