

Topic :- Structural Organisation in Animals

- 1 **(b)**
Malpighian tubules are present at the junction of midgut and hindgut and helps in the removal of excretory products from haemolymph
- 2 **(a)**
Blood of cockroach contains colourless plasma and leucocytes
- 3 **(d)**
Basophils are non-phagocytic in nature. Their number increases in chicken pox. These represent mast cells of connective tissue.
- 4 **(a)**
The mature bone generally has two types of parts-compact (dense and solid) or periosteal bone and spongy bone. The spongy bone (cancellous or trabecular bone) consists of bony bars. The red bone marrow, is the most radio-sensitive tissue of the body.
- 5 **(a)**
Squamous epithelium is present on absorptive and secretory surfaces. They are found in the walls of blood vessels and air sacs of lungs, where it is involved in the formation of diffusion boundary
- 6 **(d)**
Cells are compactly packed with inter cellular spaces to form epithelial. The connective tissue secretes fibres of structural protein called collagen. Neuroglia is made up to more than one half the volume of neural tissue in human body
- 7 **(b)**
The structure of the cells vary according to their function. Therefore, the tissues are different and broadly classified into four types, *i.e.*, epithelial, connective, muscular and neural
- 8 **(b)**
Hind limbs of frog have five fingers
- 9 **(a)**
As earthworm lives after forming in soil hence soil erosion is harmful for earthworm
- 10 **(c)**
Spleen in mammals acts as haemopoietic tissue because synthesis of WBCs takes place in spleen lymphocytes, For the destruction and recycling of old red blood cells. The spleen is also a blood reservoir.
- 11 **(a)**
Body of the cockroach is covered by hard chitinous exoskeleton. Exoskeleton has hardened plates called sclerites, which are joined to each other by a thin and flexible articular membrane.

- These sclerites are formed of chitin which is a polysaccharide of acetylglucosamine molecules
- 12 **(a)**
In the line with male genital pores, the 17th-19th segments bear a pair of papillae each. These are called copulatory papillae. Each papilla has shallow, cup like pit and bears fine aperture of accessory glands
- 13 **(c)**
In male reproductive system of frog, vasa efferentia are 10-12 in numbers arises from testes. They enter the kidney on their sides and opens into the Bidder's canal
- 14 **(a)**
In human body 98.5% of O₂ is transported by the respiratory pigment haemoglobin which is present in erythrocyte of blood. One molecule of haemoglobin can carry four molecules of O₂
- 15 **(c)**
A-RBCs; B-WBCs; C-Platelets
- 16 **(a)**
In excretory system of the earthworm, integumentary nephridia, is attached to the lining of the body wall of segment 3 to the last that opens on the body surface. They discharge body waste to the exterior by nephridiopores
- 17 **(d)**
Nerve cells is unit of nervous tissue. It is specialized for communication between various parts of the body and in integration of their activities.
- 18 **(d)**
Neuroglia consists of supporting and packing cells found in the brain, spinal cord and ganglia. These cells have different shapes and bears many processes
- 19 **(d)**
Basophils are granule containing leucocytes. They release heparin, histamine and serotonin. They are probably like mast cells of connective tissue. Monocytes and neutrophils are phagocytic in nature, while lymphocytes and eosinophils play a role in immune system.
- 20 **(c)**
The striated or striped or skeletal or voluntary muscles are in the form of bundles of individual muscle fibres. These bundles are called fascicule. These fasciculi are covered by three coverings of connective tissue. These coverings are epimysium (outermost covering), perimysium (middle covering) and endomysium (innermost covering).

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

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