

2. ANIMAL TISSUES

2VSAQ+1SAQ [2M+2M+ 4M] = 8 MARKS

FRUIT POINTS

1. **Structural organisation** deals with structures, functions and types of cells, tissues and organ systems of animals.
2. Development of tissues is a major event in evolution.
3. **Animal tissues are four types:** (i) Epithelial (ii) Connective (iii) Muscular (iv) Nerve tissue.
4. **Epithelial tissue** helps in diffusion, secretion, absorption and protection.
5. **Connective tissue** binds and supports other tissues and organs.
6. **Muscular tissue** helps in various type of movements both voluntary and involuntary.
7. **Nerve tissue** brings coordination of various organs and helps in survival of organism.
8. **Cephalization** is the formation of nerve and sensory cells at the anterior part of the body.
9. 'Tube-within-a-tube' organisation is first formed in **Nematoda**. [IPE]
10. The organs like kidneys in vertebrates are covered by the parietal peritoneum only on the ventral side. The organs lined by it are called **retroperitoneal organs**. [IPE]
11. **Mast cells** secrete heparin, histamine, bradykinin and serotonin. [IPE]
12. **Tendons** connect skeletal muscles to the bone. [IPE]
13. **Ligaments** connect one bone with another bone. [IPE]
14. '**Fibrous cartilage**' is the strongest cartilage. [IPE]
15. **Haversian system** is a unit of compact bone. It consists of (i) Haversian canal (ii) Concentric bone lamellae (iii) lacunae (iv) canaliculi (v) Volkman's canals. [IPE]
16. **Osteon:** In a dense bone, a Haversian canal and the surrounding lamellae and lacunae are collectively called Osteon (Haversian system). [IPE]
17. **Sesamoid bone** is a tendon bone. It is formed by ossification in tendon. **Ex:** Patella (knee cap)
18. The percentage of volume of RBC in total volume of blood is **Haematocrit value**.
19. **Cardiac muscle** is highly resistant to fatigue because it has numerous sarcosomes, many molecules of myoglobin and rich supply of blood for continuous aerobic respiration.
20. The function of the gap junction is to **stop substance from leaking across a tissue**. [NEET-2015]
21. Frog's heart when taken out of the body continues to beat for sometime, because **Heart is 'myogenic' in nature, Heart is autoexcitable**. [NEET-2017]
22. Goblet cells of alimentary canal are modified from **columnar epithelial cells**. [NEET-2020]
23. Cartilage is present between the adjacent bones of the **vertebral column**. [NEET-2022]
24. **Ligaments** is an example of dense regular connective tissue and cartilage is a specialised connective tissue. [NEET-2023]