

ANALYSE & APPLY - 1

Choose the correct answer :

1. Apical parts of roots and shoots consist of : []
 a) apical meristems
 b) lateral meristems
 c) intercalary meristems
 d) none of these
2. Meristematic tissue responsible for increase in girth of plants is : []
 a) apical meristem
 b) intercalary meristem
 c) both apical and intercalary meristem
 ✓ d) lateral meristem
3. The cells enclosing the stoma are called : []
 a) epidermal cells
 b) subsidiary cells
 ✓ c) guard cells
 d) cambial cells
4. The simple permanent tissue that consists of thick-walled, narrow, elongated, dead cells is : []
 ✓ a) collenchyma
 b) sclerenchyma
 c) parenchyma
 d) chlorenchyma
5. Short branched processes arising from the cell body of neuron are called : []
 a) axons
 ✓ b) dendrites
 c) nissl's bodies
 d) synapses
6. Ligament is a strong and elastic connective tissue to join : []
 ✓ a) two bones each other
 b) bones to muscles
 c) muscles to bones
 d) all of these
7. Skeletal muscles are mostly attached to : []
 a) ligaments
 ✓ b) internal organs
 c) cartilage
 d) bones
8. Permanent tissues are derived from : []
 a) meristematic tissue
 b) simple tissue
 ✓ c) complex tissue
 d) all of these
9. Parenchyma cells are : []
 ✓ a) relatively unspecified and thin walled
 b) thick walled and specialised
 c) lignified
 d) none of these
10. Collagen is present in : []
 a) white fibres
 ✓ b) yellow fibres
 c) muscle fibres
 d) red fibres
11. Which of the following cells are living cells ? []
 a) Fibres
 b) Sclereids
 ✓ c) Vessels
 d) Collenchyma
12. A nail is inserted in the trunk of a tree at a height of 1 meter from the ground level. After 3 years the nail will : []
 ✓ a) move downwards
 b) move upwards
 c) remain at the same position
 d) move side
13. The type of epithelial tissue responsible for digestion of food materials is : []
 a) stratified squamous epithelium
 ✓ b) columnar epithelium
 c) spindle fibres
 d) cuboidal epithelium

14. Contractile proteins are found in : a) bones b) blood c) muscles d) cartilage
15. A person met with an accident in which two long bones of hand were dislocated. Which among the following may be the possible reason ? a) Tendon break b) Break of skeletal muscle c) Ligament break d) Areolar tissue break
16. Which of the following are involuntary muscles ? a) Striated muscles b) Smooth muscles c) Cardiac muscles iv) Skeletal muscles d) (i) and (ii) (ii) and (iii) c) (iii) and (iv) d) (i) and (iv)
17. Simple squamous epithelium is present in : a) lungs b) liver c) intestine d) stomach
18. Which of the following is not a function of epidermis ? a) Protection from adverse condition b) Gaseous exchange c) Conduction of water d) Transpiration
19. Which of the following is not a function of epithelial tissue ? a) It covers outer surface of organs and lines inner surface of cavities b) It protects the body from injuries chemicals and microbes c) It may be secretory in nature d) It joins various structures
20. Solid matrix of cartilage consists of : a) calcium compounds b) both calcium and phosphate compounds c) cells are filled with fat globules and sugars d) proteins and sugars

Signature of the Teacher

Date of Completion :



ANALYSE & APPLY - 2

Assertion - Reasoning based questions.

These consist of two statements - Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
- Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A)
- Assertion (A) is true but Reason (R) is false
- Assertion (A) is false but Reason (R) is true

1. **Assertion (A) :** Roots do not grow after their tips are removed.**Reason (R) :** When tips are removed, apical meristem is also removed. [A]2. **Assertion (A) :** Surface of the skin is impervious to water and skin protects the body.**Reason (R) :** Surface of the skin is covered by stratified cuboidal epithelium. [C]

3. Assertion (A) : In desert plants, epidermis has a thick waxy coat of cutin on its outer surface.
Reason (R) : Desert plants maintain their water quantity and helps them to not dry. [Q]
4. Assertion (A) : Striated muscles are also called skeletal muscles.
Reason (R) : They are mostly attached to bones and help in body movement. [Q]
5. Assertion (A) : The growth of plants occurs only in certain specific regions.
Reason (R) : The dividing tissue, also known as meristematic tissue, is located only at the specific points. [Q]
6. Assertion (A) : Meristematic tissues have dense cytoplasm and no vacuoles.
Reason (R) : Meristematic cells divide frequently and give rise to new cells. Vacuoles causes resistance in cell division as it is full of cell sap to provide turgidity and rigidity to the cell. [Q]
7. Assertion (A) : Blood is called a fluid connective tissue.
Reason (R) : Blood has a fluid matrix called plasma in which blood cells are suspended. [Q]
8. Assertion (A) : Xylem and phloem are called complex tissues.
Reason (R) : These tissues are made of more than one type of cells. [Q]
9. Assertion (A) : Two bones are connected to each other by a type of connective tissue called the ligament.
Reason (R) : Ligament is more elastic and has considerable strength. [Q]
10. Assertion (A) : Fat storing adipose tissue is found below the skin and between internal organs.
Reason (R) : Storage of fats also lets it to act as an insulator. [Q]
11. Assertion (A) : The functional combination of nerve and muscle tissue is fundamental to most animals.
Reason (R) : This combination enables animals to move rapidly in response to stimuli. [Q]
12. Assertion (A) : The contraction and relaxation of blood vessels are involuntary movements.
Reason (R) : We cannot really start them or stop them simply by wanting to do so. [Q]
13. Assertion (A) : Areolar connective tissue is found between the skin and muscles.
Reason (R) : Areolar tissue helps in repair of tissues. [Q]
14. Assertion (A) : Bone forms the frame work that supports the body.
Reason (R) : Bone anchors the muscles and supports the main organs of the body. [Q]
15. Assertion (A) : Simple squamous epithelial cells are extremely thin and flat and form a delicate lining.
Reason (R) : The skin is made of cuboidal epithelium. [C]

CASE STUDY BASED QUESTIONS

Source - based / Case - based / Passage - based / Integrated questions :

Answer the questions on the basis of your understanding of the following paragraph and related to studied concepts.

Blood has a fluid (liquid) matrix called plasma, in which red blood corpuscles (RBCs), white blood corpuscles (WBCs) and platelets are suspended. The plasma contains proteins, salts and hormones. Blood flows and transports gases, digested food, hormones and waste materials to different parts of the body.

- i. What is meant by tissue ?

A tissue is a group of cells that are similar in structure and work together to perform a specific function.

- ii. Blood is called fluid connective tissue. Give reason.

Blood is called a fluid connective tissue because it has a fluid matrix called plasma and its connect different parts of body by transporting Substance.

- iii. Mention the components of plasma of blood.

- Water ; • Proteins ; • Salts ; • Hormones ; • Nutrients ;
- Waste products like urea and carbon dioxide.

- iv. List the names of blood cells.

- Red blood cells (RBCs)
- White blood cells (WBCs)
- Platelets

- v. Write the uses of blood.

- Transports oxygen and carbon dioxide
- Carries nutrients and hormones.
- Removes waste materials from the body.