

Multiple Choice Questions

[1 marks each]

Q. 1. A student noted down the following observations while looking into a permanent slide under a microscope :

- (i) Cells are long and cylindrical.
- (ii) Light and dark bands are present giving striated appearance.

It could be a :

(Board Term I 2013, OAHJD6N)

- (a) slide of smooth muscle fibre
- (b) slide of striated muscle fibre
- (c) slide of neuron
- (d) slide of parenchyma cells.

Q. 2. The unique feature of the nucleus of the striated muscle is :

- (a) oval shaped and multinucleate
- (b) elongated and multinucleate
- (c) oval shaped and uninucleate
- (d) elongated and uninucleate.

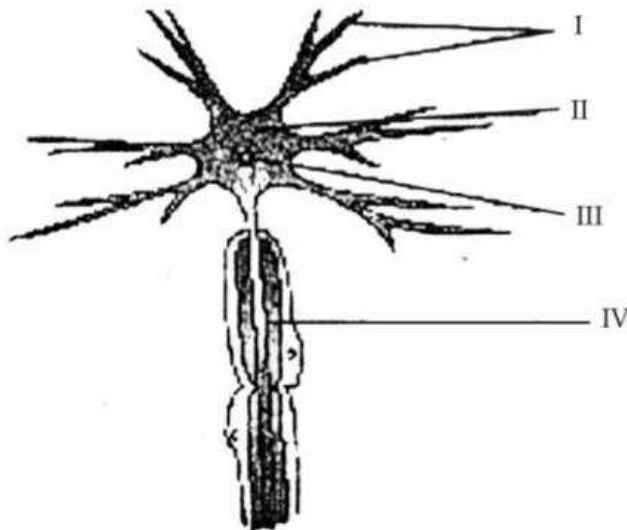
Q. 3. Identify parenchyma on the basis of description given below :

- (a) thin walled living cells with cellulose cell wall and intercellular spaces
- (b) living cells with cellulose cell walls showing thickenings at corners
- (c) dead cells with lignified secondary walls
- (d) living cell without nuclei but having sieve pits.

Q. 4. The tissues that are irregularly thickened at corners is :

- (a) parenchyma
- (b) collenchyma
- (c) xylem
- (d) Phloem.

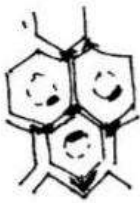
Q. 5.



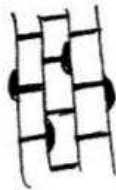
Correct labelling is ?

- (a) I – Nerve endings
- II – Axon
- III – Nucleus
- IV – Cell body
- (b) I – Axon
- II – Cell body
- III – Cyton
- IV – dendrite
- (c) I – Cyton
- II – Axon
- III – Nucleus
- IV – Dendrite
- (d) I – Dendrite
- II – Cell body
- III – Nucleus
- IV – Axon

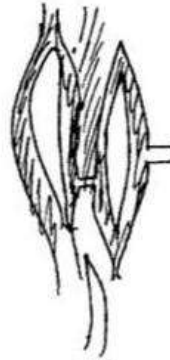
Q. 6. Students observed the following tissues under the microscope. Which one of the tissues is dead, without living cytoplasm and nucleus ?
(Board Term I, 2012 Set-015)



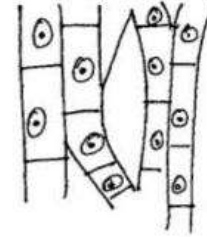
(I)



(II)



(III)



(IV)

(a) (I)

(b) (II)

(c) (III)

(d) (IV)

Q. 7. The tissues which consist of relatively unspecialised living cells with thin cell wall and intercellular spaces are :
(Board Term I, 2012 Set-016)

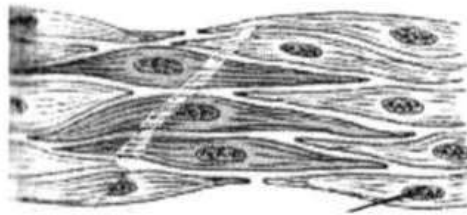
(a) parenchyma tissue

(b) collenchyma tissue

(c) sclerenchyma tissue

(d) meristematic tissue

Q. 8. Anuja observed a permanent slide of a muscle fibre under a microscope as shown below. She identified the slide as :
(Board Term I, 2012 Set-019)



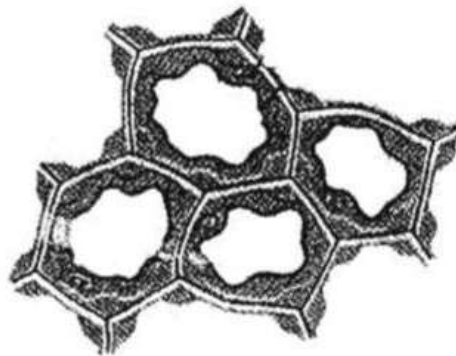
(a) striated muscles

(b) cardiac muscles

(c) skeletal muscles

(d) non-striated muscles

Q. 9. Raman observes a permanent slide of plant tissue under a microscope as shown in the figure below. He identifies the tissue as :
(Board Term I, 2012 Set-020)



(a) transverse section of collenchyma

(b) longitudinal section of collenchyma

(c) transverse section of sclerenchyma

(d) longitudinal section of sclerenchyma

Q. 10. While observing a slide of animal tissue under a microscope, Reena observed light and dark bands. The slide can be of :
(Board Term I, 2012 Set-021)

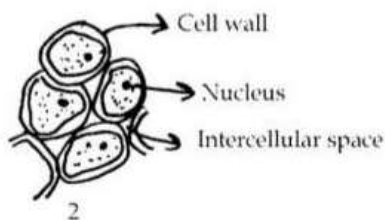
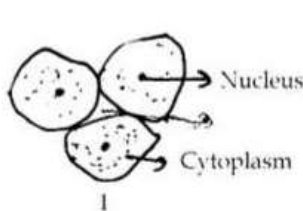
(a) voluntary muscles

(b) involuntary muscles

(c) both 'a' and 'b'

(d) none of these

- Q. 11.** A student was asked to write the characteristic features of nerve cell after viewing it under the microscope. The correct features will be : (Board Term I, 2012 Set-028)
- (a) oval shaped cells with lobed nucleus
 (b) spindle shaped cells with band
 (c) loosely packed cells floating in matrix
 (d) a cell body with branched cytoplasmic extensions at one end and a long projection at the other end.
- Q. 12.** The most common type of ground tissue is : (Board Term I, 2012 Set-031)
- (a) collenchyma (b) sclerenchyma (c) parenchyma (d) epidermis
- Q. 13.** You are given 2 slides – parenchyma and sclerenchyma. Sclerenchyma can be identified by : (Board Term I, 2012 Set-033)
- (a) location of nucleus (b) size of cells
 (c) thickness of cell wall (d) position of vacuoles
- Q. 14.** A permanent plant tissue consisting of thin walled living cell is : (Board Term I, 2012 Set-034)
- (a) parenchyma (b) collenchyma (c) Sclerenchyma (d) xylem
- Q. 15.** A girl was observing a slide of muscle under microscope. She identified the muscle as striated on the basis of : (Board Term I, 2012 Set-035)
- (a) cells are long, cylindrical, unbranched and uninucleate
 (b) cells are long, cylindrical, branched and uninucleate
 (c) cells are long, cylindrical, unbranched and multinucleated
 (d) cells are long with pointed ends and uninucleate
- Q. 16.** A student observed the slide of a nerve cell and labelled the branches around the cell body as : (Board Term I, 2012 Set-040)
- (a) cyton (b) dendrite (c) axon (d) nerve ending
- Q. 17.** Meena observed a slide of transverse section of parenchyma tissue, she identified it on the basis of : (Board Term I, 2012 Set-041)
- (a) thickening of cell wall due to deposition of lignin
 (b) dead cells
 (c) living cells with thin cell walls and intercellular spaces
 (d) absence of intercellular spaces and vacuoles
- Q. 18.** Aditi observed following observation while looking into a permanent slide : (i) Cells are long and cylindrical, (ii) Light and dark bands are present giving striated appearance It could be a slide of : (Board Term I, 2012 Set-042)
- (a) striated muscle fibre (b) smooth muscle fibre
 (c) neuron (d) parenchyma cells
- Q. 19.** After observing a permanent slide of parenchyma tissue, Amit drew the labelled diagram of parenchyma tissues. Complete and correct labeling is done in figure :

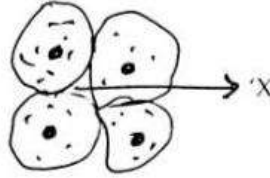


- (a) fig (1) (b) fig (2)
 (c) fig (1) and (2) under different magnifications.
 (d) none of these figures

Q. 20. Some students observed a permanent slide of striated muscles. The cells appeared to be :
(Board Term I, 2012 Set-048)

- (a) cylindrical (b) discoidal
(c) spindle shape (d) square shape

Q. 21. In the following diagram the part labelled by X shows : (Board Term I, 2012 Set-050)



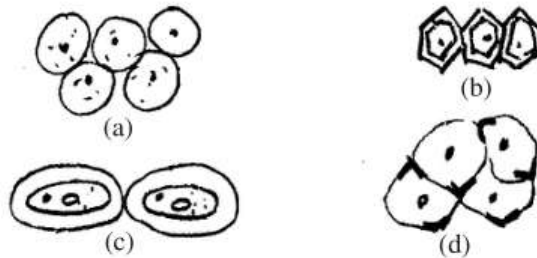
- (a) intercellular space (b) intracellular space
(c) cytoplasm (d) vacuole

Q. 22. After observing a slide of longitudinal section of sclerenchyma a student has drawn its diagram as given below. The parts marked X and Y should respectively be labeled as :



- (a) narrow lumen, simple pit pair (b) simple pit pair, narrow lumen
(c) narrow lumen, lignified thick wall (d) lignified thick wall, narrow lumen

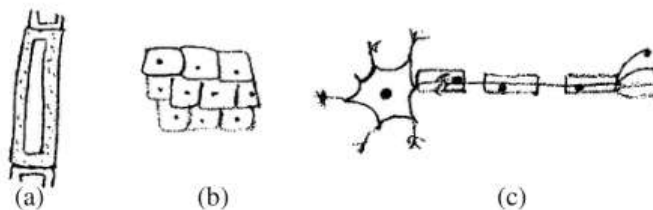
Q. 23. Four students observed parenchyma tissue and drew following diagrams. Which one is correct ?
(Board Term I, 2012 Set-054)



- (a) (a) (b) (b) (c) (c) (d) (d)

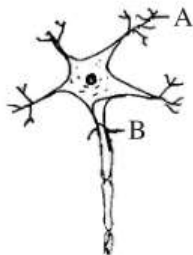
Q. 24. Identify the following slides in the correct order based on the features.

(Board Term I, 2012 Set-056)



- (a) nerve cell, parenchyma, sclerenchyma (b) sclerenchyma, nerve cell, parenchyma
 (c) sclerenchyma, parenchyma, nerve cell (d) parenchyma, sclerenchyma, nerve cell

Q. 25. In the following diagram; the correct labeling for A and B is : (Board Term I, 2012 Set-059)



- (a) A - Nucleus B - Dendrite (b) A - Dendrite B - Axon
 (c) A - Axon B - Nucleus (d) A - Dendrite B - Nucleus

ANSWERS

- | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|----------|---------|---------|
| 1. (b) | 2. (a) | 3. (a) | 4. (b) | 5. (d) | 6. (a) | 7. (a) | 8. (d) | 9. (a) |
| 10. (a) | 11. (d) | 12. (c) | 13. (c) | 14. (a) | 15. (c) | 16. (b) | 17. (c) | 18. (a) |
| 19. (c) | 20. (a) | 21. (a) | 22. (c) | 23. (a) | 24. (c) | 25. (b). | | |

ANSWERS WITH EXPLANATION

1. (b) Striated muscle fibre are long and cylindrical and possess light and dark bands.
2. (a) Nucleus of the striated muscles are oval shaped.
3. (a) Thin walled living cells with cellulose cell wall and intercellular spaces.
4. (b) Collenchyma is present in leaf stalks below the epidermis, these cells are thickened at corners to reduce the intercellular spaces, making them compactly arranged.
5. (d) This is correct labelling.
6. (a) Sclerenchyma.
7. (a) Parenchyma has thin cell wall and spaces.
8. (d) Non-striated muscles.
9. (a) T. S. of collenchyma.
10. (a) Bands are present in voluntary muscles.
11. (d) Nerve cell has cytoplasmic projections.
12. (c) Parenchyma.
13. (c) Sclerenchyma has thick cell wall.
14. (a) Parenchyma.
15. (c) Characteristic of striated muscles.
16. (b) Dendrite.
17. (c) Characteristic of parenchyma.
18. (a) Striated muscles.
19. (c) Diagrammatic truth.
20. (a) Cylindrical.
21. (a) Diagrammatic truth.
22. (c) Diagrammatic truth.
23. (a) Diagrammatic truth.
24. (c) Diagrammatic truth.
25. (b) Diagrammatic truth.

Practical Based (Short Answer Type Questions) [2 mark each]

Q. 1. In experiment, to study parenchyma and sclerenchyma cells, which cells are dead and why ?

Ans. Sclerenchyma cells are dead, as their walls are thickened due to lignin, a chemical substance, which acts as cement and hardens them. 2

Q. 2. While studying parenchyma tissues, mention two functions of the parenchyma tissues.

Ans. (i) The cells of the parenchyma tissue remain turgid and provide rigidity or support to softer parts.

(ii) Parenchyma present in xylem and phloem takes part in some lateral movement of materials. (1+1)

Q. 3. Why Safranin is used for staining plant materials in the experiment ?

Ans. Safranin is a reddish – pink solution mostly used in laboratory for staining plant sections. Safranin makes the various parts of plant section appear very clearly. 2

Q. 4. In an experiment, to study the permanent slide of neuron, name the two types of processes present in neuron.

Ans. Two types of processes present in neuron are —

(i) AXON : It carry impulses away from the cell body.

(ii) DENDRITE : It carry impulses towards the cells body. (1+1)

Q. 5. In an experiment, to study the permanent slide of striated and unstriated muscles fibres, why are smooth muscles called involuntary muscles and in what way they are different from striated muscles ?

Ans. Unstriated or smooth muscles are called involuntary muscles because we cannot stop or move them according to our will. Smooth muscles are uninucleate whereas striated muscles are