NSEB 11th 2026

DPP-06

Structural Organization in Animals

1. Each muscle is made up of:
(A) few long cylindrical fibres arranged in parallel arrays.
(B) many short cylindrical fibres arranged in parallel arrays.
(C) many long cylindrical fibres arranged in parallel arrays.
(D) few short cylindrical fibres arranged in parallel arrays.

2. Branched muscle fibres are present in:
(A) Smooth muscles
(B) Cardiac muscles
(C) Skeletal muscles
(D) Smooth, cardiac and skeletal muscles

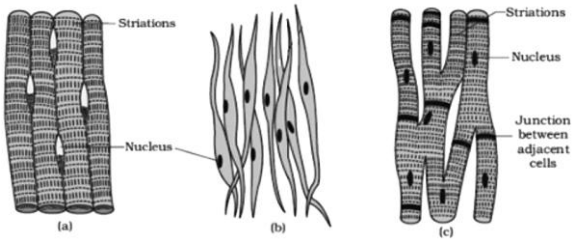
3. Gap junction are present between muscle fibres in:
(A) Smooth muscles
(B) Cardiac muscles
(C) Skeletal muscles
(D) Both (A) and (B)

4. Cells in cardiac muscles contract as a unit due to presence of:
(A) Communication junctions
(B) Gap junctions
(C) Both (A) and (B)
(D) Mechanical junctions

5. Myofibrils are:
(A) contracted muscle fibres.
(B) structural components of all muscle fibres.
(C) striated muscle fibres.
(D) skeletal muscle fibres.

6. Skeletal muscles are:
(A) striated in appearance.
(B) smooth in appearance.
(C) involuntary muscles.
(D) Both (A) and (C)

7. Go through the following figures.



Identify these muscles (a, b and c)

	a	b	c
(A)	Smooth muscles	Striated muscles	Cardiac muscles
(B)	Cardiac muscles	Smooth muscles	Striated muscles
(C)	Striated muscles	Smooth muscles	Cardiac muscles
(D)	Involuntary muscles	Voluntary muscles	Heart muscles

8. The structural and functional unit of nervous system is:
(A) Neuron (B) Neuroglia
(C) Oligodendrocyte (D) Ganglia

9. The neurons in the neural system are protected by:
(A) Dendrites (B) Neuroglial cells
(C) Axons (D) Nissl's granules

10. Neurons differ from a typical cell because of the presence of:
(A) Nucleolus
(B) Nissl's granules
(C) Protein synthesising machinery
(D) Microfilaments

11. Nissl's bodies are mainly composed of:
(A) proteins and lipids.
(B) DNA and RNA.
(C) nucleic acids and SER.
(D) free ribosomes and RER.

12. The dendrites of a neuron are:

(A) long, unbranched processes associated with cell body and axon.

(B) short, highly branched processes of cell body.

(C) long and branched processes of cell body.

(D) short, unbranched processes of cell body and axon.

13. **Statement-I:** Smooth muscles and cardiac muscles are involuntary.

Statement-II: Function of smooth muscles and cardiac muscles are not directly controlled.

(A) Statement I and Statement II both are correct.

(B) Statement I is correct, but statement II is incorrect.

(C) Statement I is incorrect, but Statement II is correct.

(D) Statement I and Statement II both are incorrect.

14. **Assertion (A):** Neurons are excitable cells.

Reason (R): Neurons are found abundantly throughout the body.

(A) Both Assertion (A) and Reason (R) are true, and Reason (R) is a correct explanation of Assertion (A).

(B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not a correct explanation of Assertion (A).

(C) Assertion (A) is true, and Reason (R) is false.

(D) Assertion (A) is false, and Reason (R) is true.

15. Match List-I with List-II to find out the correct option.

List-I		**List-II**	
I	Neurotrans-mitters	A	Ribosomal granules
II	Nissl's granules	B	Short and branched
III	Dendrites	C	Contained in synaptic vesicle
IV	Axon	D	Carry impulse away from cell body

(A) I-A, II-C, III-B, IV-D

(B) I-C, II-A, III-D, IV-B

(C) I-C, II-A, III-B, IV-D

(D) I-A, II-C, III-D, IV-B

Answer Key

1.	(C)	**9.**	(B)
2.	(B)	**10.**	(B)
3.	(B)	**11.**	(D)
4.	(C)	**12.**	(B)
5.	(B)	**13.**	(A)
6.	(A)	**14.**	(B)
7.	(C)	**15.**	(C)
8.	(A)		