

Choose the right answer! All questions must be answered (10 marks):

1- This type of contraction involves the shortening of muscles to physically move body parts:

- A) Isometric ☒ B) Isotonic C) Eccentric D) None above

2- The ends of the actin filaments are anchored (attached) to the.

- A) M-line B) Perimysium ☒ C) Z-line D) Sarcoplasmic reticulum

3- A nerve impulse jumps from one to another during saltatory conduction.

- A) Synapse B) Axon C) Myelin sheath ☒ D) Node of Ranvier

4- In a resting nerve cell, it is mostly on the outside of the cell and mostly on the inside of the cell.

- A) Potassium, Sodium  
B) Sodium, Sodium  
☒ C) Sodium, Potassium  
D) Potassium, Potassium

5- An action potential occurs when it is reached.

- ☒ A) Threshold  
B) Resting Potential  
C) Hyperpolarization  
D) Myelination

6- Mast cells produce.

- ☒ A) Heparin and Histamine B) calcitonin C) melanin D) vasopressin

7- Which is the main collagen of the reticular fiber?

- A) Type I collagen B) Type II collagen ☒ C) Type III collagen  
D) Type IV collagen

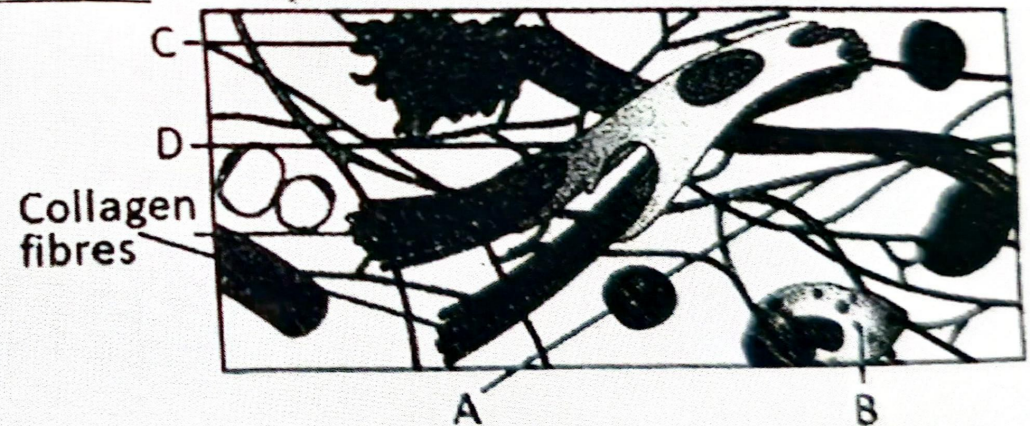
8- Elastic fibers are much fewer than those of collagen.

- ☒ A) True B) False

9- Melanocytes (pigment cells) are commonly found in the retina and the skin.

- ☒ A) True B) False

10- In the given diagram of connective tissue, identify the yellow or elastic fibre.



1) A

2) B

3) C

☒ 4) D

Best wishes

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## Introduction to Histology and animal physiology

(midterm exam 2026)

Name: .....

Section: .....

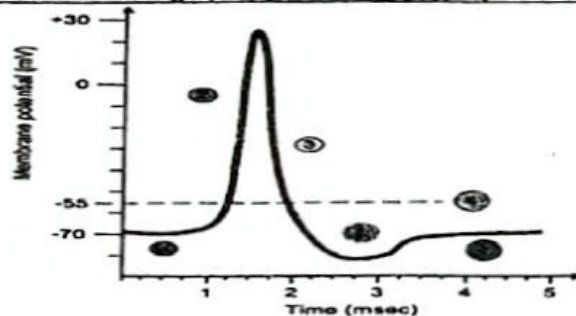
Time allowed: 1 hour **Model (B)**

Choose the right answer! All questions must be answered (10 marks):

1-A nerve cell can also be termed:

- A) Cell Body B) Neuron C) Dendrite D) Axon

2-What number on the graph represents the Hyperpolarization phase?



- A) 1 B) 2 C) 3 D) 4

3-The form of cellular energy used to power muscle contraction is

- A) ADP B) ATP Enzymes C) ATP D) Calmodulin

4-The sodium/potassium pump moves \_\_\_\_\_ into the cell and \_\_\_\_\_ out of the cell.

- A) Potassium, Sodium  
B) ATP sodium  
C) Sodium, Potassium  
D) ATP Potassium

5-What kind of muscle moves the food toward your stomach?

- A) Cardiac B) Skeletal C) Voluntary D) Smooth

6- Which of the following is **NOT** one of the three main structural components of connective tissue?

- A) Cells B) Fibres C) Basement membrane D) Ground substance

7- Proteoglycans in ground substances are very good at absorbing water.

- A) True B) False

8- Fresh collagen fibers are naturally colorless all tissues

- A) True B) False

9- Macrophages are also known as.

- A) Melanocytes B) Histaminases C) histiocytes D) Multilocular cells

10- Which cell type can transform into any other connective tissue cell.

- A) Plasma Cell  
B) Undifferentiated Mesenchymal Cell  
C) Macrophage  
D) Melanocyte

Best wishes

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