Semester 2

2025

HISTOLOGY

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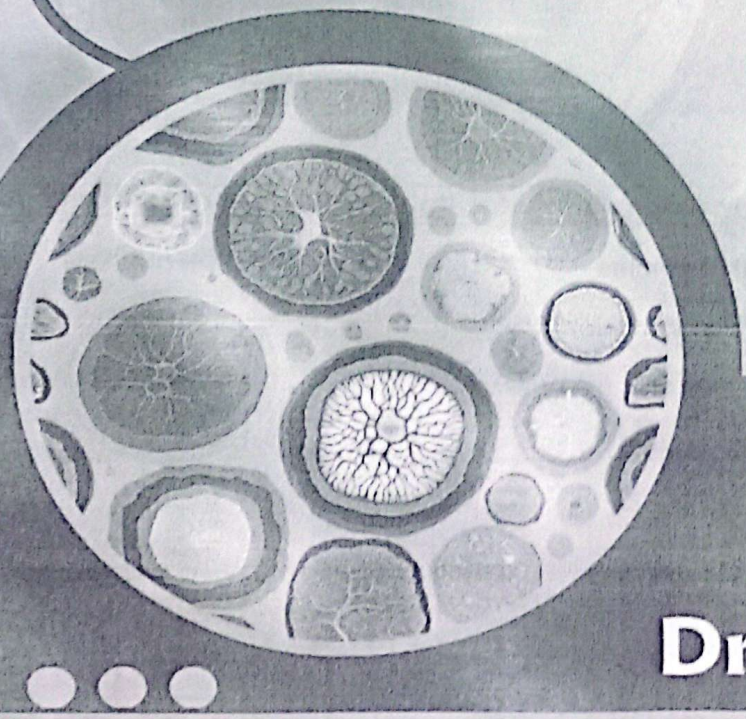
MSS



Lecture 2- MCQs

Dr.A.G

1) **What is the shape of intercalated discs when viewed under the light microscope?**

A) Curved

B) Spiral

C) Step-like

D) Branched

E) Circular

2) **What is the main characteristic of the cardiac muscle cell?**

A) have large central cubical nuclei

B) They are arranged in a single line without branching

C) They are uniform in size and length

D) They are long and spindle-shaped

E) They have irregular striation

3) **Which of the following components is not found in the sarcoplasm of cardiac muscle cells?**

A) Mitochondria

B) Glycogen granules

C) melanin pigments

D) Golgi saccules

E) Lipid droplets

4) **What gives rise to the irregular striations in the cardiac muscle cells?**

A) High concentration of glycogen granules

B) Presence of smooth endoplasmic reticulum

C) Arrangement in parallel lines

D) Extensive branching and anastomosing

E) Central location of nuclei

1	2	3	4
C	E	C	D

5) **What is the function of intercalated discs in cardiac muscle cells?**

A) To store excess water

B) To store excess nutrients

C) To regulate cell shape

D) To facilitate cell division

E) To join individual muscle cells end to end

6) **How do the cell membranes of two adjacent muscle cells appear at the intercalated discs?**

A) Wavy

B) Serrated

C) Spiral

D) Circular

E) Straight

7) **Which staining method can be used to visualize intercalated discs?**

A) Wright staining

B) Immunofluorescence staining

C) Silver

D) Gram staining

E) Crystal violet staining

8) **What is the shape of intercalated discs when viewed under the light microscope?**

A) Curved

B) Spiral

C) Step-like

D) Branched

E) Circular

5	6	7	8
E	E	C	C

9) **How are the layers of non-striated muscle arranged?**

A) Longitudinal, diagonal, circular, irregular

B) Circular, parallel, perpendicular, helical

C) Oblique, vertical, perpendicular, horizontal

D) Circular, longitudinal, oblique, spiral

E) Spiral, diagonal, parallel, circumferential

10) **In smooth muscle, the sarcolemma shows all of the following except:**

A) Actin and myosin

B) Numerous gap junctions

C) T-tubules with vesicular caveolae

D) Well-developed sarcoplasmic reticulum

11) **Which type of arrangement do non-striated muscle fibers have?**

A) Quadrilateral

B) Fusiform

C) Circular

D) Parallel

12) **The cytoplasm of a smooth muscle fiber in smooth muscle is rich in all of the following except:**

A) Glycogen

B) RER

C) Striations

D) Mitochondria

E) Ribosomes

9	10	11	12
D	A	B	C

13) **Which structure in smooth muscle carries impulses inside the cell and regulates calcium pump?**

A) Desmosomes

B) Golgi saccules

C) Intermediate filaments

D) T-tubules

E) Caveolae

14) **What do the narrow spaces between individual muscle fibers and bundles in smooth muscle contain?**

A) dense collagen connetive tissue

B) yellow elastic connective tissue

D) mucoid connective tissue

E) Loose connective tissue

15) **which of the following is considered involuntary skeletal muscle?**

a- upper 2/3 of esophagus

b- bicpes cardiac muscles

c- GIT muscles

d- wall of blood vessels

16) **Which of the following is considered branching muscles**

a- smooth muscles

b- tongue muscles

c- facial muscles

d- cardiac muscles

e- non-striated muscles

13	14	15	16
E	E	A	D

17) **Which of the following contin intermediate filaments?**

a- smooth muscles

b- skeletal muscles

c- cardiac muscles

d- cremasteric muscles

e- facial muscles

18) **Which of the following has No T-tubules but caveolae**

a- skeletal muscles

b- smooth muscles

c- cardiac muscles

d- Cremasteric muscles

e- facial muscles

19) **the diad od cardiac muscle fibers are present at**

a- AI junction

b- at border of H zone

c- in A band

d- at caveolae

e- at z lines

20) **which of the following regenerate by mitosis and differentiation of pericytes**

a- skeletal muscles

b- cardiac muscles

c- Cremasteric muscles

d- smooth muscles

e- facial muscles

17	18	19	20
A	B	E	D

21) **What is the shape of nuclei in cardiac muscle fibers**

a- Peripheral, multiple, oval, flat

b- Central, single, oval buy may be binucleated

c- Central, single, oval or rod-shaped

d- peripheral flat acidophilic

21
B