

Section 1

Tissue and Structure mcqs

- 1) Regarding tissues:
 - a) cartilage is very vascular
 - b) ligaments are generally not elastic
 - c) deep fascia is insensate
 - d) cardiac muscle is not striated
 - e) periosteum is not sensitive

- 2) An example of a unipennate muscle is:
 - a) sartorius
 - b) flexor pollicis longus
 - c) rectus femoris
 - d) deltoid
 - e) tibialis anterior

- 3) An example of a secondary cartilaginous joint is:
 - a) distal tibiofibular joint
 - b) costochondral joint
 - c) sagittal suture
 - d) manubrio-sternal joint
 - e) knee joint

- 4) Which vessel is not an end artery?
 - a) renal artery
 - b) retinal artery
 - c) pulmonary artery
 - d) intercostal artery
 - e) splenic artery

- 5) The appendages of the skin:
 - a) are derived from mesoderm
 - b) are derived from epidermal tissues
 - c) lie in the dermal layer
 - d) are derived from endoderm

- 6) Melanocyte(s):
 - a) number determine the colour of the skin
 - b) are responsible for high colour, greying is the result of decreasing numbers
 - c) produce varying melanins
 - d) are found mainly in the dermal layer

- 7) In regards to connective tissue:
 - a) aponeuroses are a form of deep fascia
 - b) retinaculae are a form of ligament
 - c) deep fascia is insensate
 - d) some ligaments are designed to allow a degree of elasticity

- 8) With regards to cartilage:
- a) in the elderly, the epiglottis can occasionally be seen on x-ray as its elastic cartilage calcifies
 - b) bones that develop by intramembranous ossification have fibrocartilage at their articular surfaces
 - c) cartilage is nourished exclusively by ground substance as it has no blood supply
 - d) the most common form of cartilage is fibrocartilage
- 9) Which is correct?
- a) oblique alignment of striated muscle fibres allows for greater force of contraction
 - b) smooth muscle is multi-nucleated
 - c) the epimysium surrounds groups of striated muscle fibres to form muscle bundles or fasciculi
 - d) rectus femoris fibres are arranged in a multi-pennate form to allow increased force of contraction
 - e) alpha anterior horn cells of the spinal cord supply the intrafusal muscle fibres
- 10) Which is correct?
- a) B-cells are responsible for cell-mediated immunity
 - b) plasma cells are differentiated B-cells
 - c) all lymphoid tissue is encapsulated
 - d) in lymph nodes, follicles of lymphocytes are concentrated in the medullary region
- 11) Which of the following pairs do not match with regard to mode of ossification?
- a) ribs and vertebra
 - b) clavicle and humerus
 - c) femur and 1st metatarsal
 - d) patella and pisiform
 - e) mandible and clavicle
- 12) Regarding cartilage, which is INCORRECT?
- a) it is essentially avascular
 - b) hyaline cartilage contains hyaluronic acid
 - c) rib cartilage is elastic type
 - d) TMJ is fibrous
 - e) all contain mucopolysaccharides
- 13) Regarding muscle strength, which is not a factor?
- a) resting muscle length
 - b) cross sectional area
 - c) lever arm length
 - d) the extent to which the muscle is contracted
 - e) configuration of fibres
- 14) Which is true?
- a) epidermis is derived from mesoderm
 - b) the sweat glands, sebaceous glands are mesodermal in origin
 - c) the epidermis contains fibrous tissue and blood vessels
 - d) the colour of the skin is determined by the number of melanocytes
 - e) the dermis has a mesodermal origin

- 15) Regarding sweat glands, which is true?
- a) the main nerve supply is via cholinergic sympathetic fibres
 - b) the main nerve supply is via adrenergic sympathetic nerves
 - c) they are derived from mesoderm
 - d) the normal tubular sweat glands undergo cyclical changes with the menstrual cycle
 - e) the highest number of sweat glands are found on the feet
- 16) Regarding cartilage, which is true?
- a) they have a rich blood supply
 - b) the intervertebral discs contain hyaline cartilage
 - c) hyaline and fibrous cartilage never calcify
 - d) elastic cartilage never calcifies
 - e) elastic cartilage is the commonest type
- 17) Regarding muscles, which is true?
- a) cardiac muscle is more powerful than skeletal or smooth
 - b) skeletal muscle fibres are spindle shaped
 - c) smooth muscle does not contain actin or myosin
 - d) skeletal muscle contraction causes peristalsis in the GI tract and ureter
 - e) cardiac muscle fibres are short, branched, mononuclear and striated
- 18) Regarding periosteum, which is TRUE?
- a) it is avascular
 - b) it is osteogenic
 - c) it covers the articular surface of long bones
 - d) it covers the inner surface of the medullary cavity
 - e) it receives its blood supply from overlying muscle
- 19) An example of secondary cartilaginous joint is:
- a) hip joint
 - b) manubrio-sternal joint
 - c) costochondral joint
 - d) epiphysis
 - e) wrist joint
- 20) An example of a fibrous joint is:
- a) the structures of the skull
 - b) vertebral column
 - c) pubic symphysis
 - d) hip joint
 - e) manubrio-sternal joint
- 21) In the skin:
- a) apocrine sweat glands are confined to the axillae, areolar, periumbilical and genital regions
 - b) dark skinned races possess greater numbers of melanocytes
 - c) sebaceous glands are abundant on the palms and soles
 - d) melanocytes predominate in the dermis
 - e) sweat glands are under the influence of sex hormones

- 22) Regarding bone:
- a) cancellous and compact bone show similar microscopic structure
 - b) the clavicle ossifies in membrane
 - c) the bones of the skull and face ossify in cartilage
 - d) the epiphyseal plates of growing bones are composed of fibrocartilage
 - e) sesamoid bones are only associated with flexor tendons
- 23) What are vincula?
- a) the papillary ridges that form finger prints
 - b) superficial fibres of the palmar aponeurosis that insert into the skin
 - c) remnant fibres of palmar interossei that insert into the proximal area of the thumb
 - d) a communication between common flexor sheath and the sheet of pollicis longus present in 50% of people
 - e) vascular synovial folds of flexor tendons

Section 1

Tissue and Structure – Answers

- 1 B
- 2 B
- 3 D
- 4 D
- 5 B
- 6 C
- 7 D
- 8 B & C
- 9 A
- 10 B
- 11 B
- 12 C
- 13 A
- 14 E
- 15 A
- 16 D
- 17 E
- 18 B
- 19 B
- 20 A
- 21 A
- 22 B
- 23 E

Section 2

Nerve Anatomy

- 1) A group C nerve fibre:
 - a) is up to 20um in diameter
 - b) is myelinated
 - c) has motor function
 - d) is fusimotor to muscle spindles
 - e) is postganglionic autonomic

- 2) Regarding autonomic nervous system, visceral pain is not referred to L3-S1 because:
 - a) there are no visceral afferents related to these lumbar splanchnic nerves
 - b) there are no white rami communications to these spinal nerves
 - c) there are no sympathetic ganglia associated with these spinal segments
 - d) there is no sympathetic efferent supply to these spinal nerves
 - e) there are no grey rami communicants associated with the autonomic ganglia of L3-S1 spinal nerves

- 3) Which of the following peripheral fibres have pain and temperature fibres?
 - a) alpha neuron
 - b) beta neuron
 - c) gamma neuron
 - d) delta neuron
 - e) group B fibres

- 4) Regarding the sympathetic nervous system:
 - a) every spinal nerve receives a white ramus communicans
 - b) efferent post ganglionic fibres are myelinated
 - c) afferent sympathetic fibres synapse in the sympathetic trunk
 - d) preganglionic cell bodies lie within the lateral horn of the T1-L2 spinal segments
 - e) each cervical ganglion gives off one ramus communicans

- 5) Which of the following nerve roots is correctly associated with the corresponding muscle action?
 - a) L5 plantar flexion
 - b) L2 knee extension
 - c) C5 abduction of the shoulder
 - d) C8 abduction of the thumb
 - e) S1 extension of the great toe

Section 2

Nerve Anatomy – Answers

- 1 E
- 2 B
- 3 D
- 4 D
- 5 C

Section 3

Nervous System

- 1) Which has the widest fibre diameter on average?
 - a) muscle spindle nerve fibres
 - b) group b
 - c) δ of group A
 - d) motor
 - e) postganglionic autonomic

- 2) Which is correct?
 - a) the lowest spinal nerve to give cutaneous supply to the anterior abdominal wall is L2
 - b) no post. ramus ever supplies skin or muscle of a limb
 - c) the posterior rami supply the prevertebral flexor muscles
 - d) C1-2 and T1 have no cutaneous branches
 - e) L1-S1 contain autonomic fibres

- 3) Which is the correct tendon reflex?
 - a) biceps C5
 - b) triceps C8
 - c) knee L3
 - d) ankle S3

Section 3

Nervous System – Answers

- 1 D
- 2 B
- 3 C

Section 4

Embryology

- 1) At birth:
 - a) the transverse diameter of the thorax is thrice the AP diameter
 - b) the liver is relatively twice as big as that of the adult
 - c) the suprarenal gland is twice as big as the kidney
 - d) the spinal cord extends to L5
 - e) the rib cage is more vertically inclined than in the adult

- 2) In the foetal skull:
 - a) the vertical height of the orbit is equal to the combined heights of the maxilla and the mandible
 - b) the mandible is ossified at birth
 - c) the anterior fontanelle is closed at the end of one year of life
 - d) the volume of the vault is equal to that of the face
 - e) the bones of the face and vault ossify at 6 years

Section 4

Embryology – Answers

- | | |
|---|---|
| 1 | B |
| 2 | A |

Tissues and Structures

1. Regarding the ossification centres of the bones of the foot, which is INCORRECT?
 - a. There are three at birth
 - b. Fifth metatarsus has three ossification centres
 - c. Metatarsals have two centres
 - d. ?
 - e. ?

2. Regarding the anatomy of the newborn
 - a. The liver is relatively small
 - b. The bladder lies within the pelvis
 - c. The facial skeleton is relatively small
 - d. The spinal cord extends to the level of the L4 vertebra
 - e. The maxillary sinus is well developed at birth

3. An example of a secondary cartilaginous joint is
 - a. Proximal tibial epiphysis
 - b. Costochondral joint
 - c. Intervertebral disc
 - d. Lambdoid suture
 - e. Temporomandibular joint

4. An example of a synovial joint is
 - a. Intervertebral disc
 - b. Sternomanubrial joint
 - c. Sacroiliac joint
 - d. Epiphyses
 - e. Distal tibiofibular joint

Answers

1. b
2. c
3. c
4. c

1 The following are features of typical synovial joints EXCEPT

- A Bone ends are covered in hyaline or fibrous cartilage
- B A capsule encloses the joint cavity
- C The capsule is reinforced by ligaments
- D The capsule is lined by synovial membrane
- E The joint is capable of movement

2 Regarding cartilage

- A Hyaline cartilage has an effective blood supply
- B Hyaline cartilage does not have a tendency to calcify
- C The epiglottis is composed of elastic cartilage
- D The larynx is composed of fibrocartilage
- E The menisci of the knee are hyaline cartilage

3 Regarding skin

- A Skin appendages are mesodermal in origin
- B Skin colour is determined by melanocyte number
- C The greatest concentration of sweat glands is on the lip margins
- D Apocrine glands are confined to the axilla
- E There are no sebaceous glands on the palms of the hands

4 Which of the the following is a primary cartilaginous joint

- A Manubriosternal joint
- B 1st sternocostal joint
- C Acromioclavicular joint
- D Inferior tibiofibular joint
- E 2nd costochondral joint

5 Which of the following is a fibrous joint

- A Pubic symphysis
- B Xiphisternal joint
- C 1st sternocostal joint
- D Superior tibiofibular joint
- E Inferior tibiofibular joint

Answers

- 1 A
- 2 C
- 3 E
- 4 B
- 5 E

24) Regarding tissues:

- a) cartilage is very vascular
- b) ligaments are generally not elastic
- c) deep fascia is insensate
- d) cardiac muscle is not striated
- e) periosteum is not sensitive

25) An example of a unipennate muscle is:

- a) sartorius
- b) flexor pollicis longus
- c) rectus femoris
- d) deltoid
- e) tibialis anterior

26) An example of a secondary cartilaginous joint is:

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- a) renal artery
- b) retinal artery
- c) pulmonary artery
- d) intercostal artery
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28) The appendages of the skin:

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29) Melanocyte(s):

- a) number determine the colour of the skin
- b) are responsible for high colour, greying is the result of decreasing numbers
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30) In regards to connective tissue:

- a) aponeuroses are a form of deep fascia
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31) With regards to cartilage:

- a) in the elderly, the epiglottis can occasionally be seen on x-ray as its elastic cartilage calcifies
- b) bones that develop by intramembranous ossification have fibrocartilage at their articular surfaces
- c) cartilage is nourished exclusively by ground substance as it has no blood supply
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32) Which is correct?

- a) oblique alignment of striated muscle fibres allows for greater force of contraction
- b) smooth muscle is multi-nucleated
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- d) rectus femoris fibres are arranged in a multi-pennate form to allow increased force of contraction
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33) Which is correct?

- a) B-cells are responsible for cell-mediated immunity
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- c) all lymphoid tissue is encapsulated
- d) in lymph nodes, follicles of lymphocytes are concentrated in the medullary region

34) Which of the following pairs do not match with regard to mode of ossification?

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- b) clavicle and humerus
- c) femur and 1st metatarsal

- d) patella and pisiform
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- a) it is essentially avascular
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- e) all contain mucopolysaccharides

36) Regarding muscle strength, which is not a factor?

- a) resting muscle length
- b) cross sectional area
- c) lever arm length
- d) the extent to which the muscle is contracted
- e) configuration of fibres

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- a) it is avascular
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- d) it covers the inner surface of the medullary cavity
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43) An example of a fibrous joint is:

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Answers

- 24 B
- 25 B
- 26 D
- 27 D
- 28 B
- 29 C
- 30 D
- 31 B & C
- 32 A

33	B
34	B
35	C
36	A
37	E
38	A
39	D
40	E
41	B
42	B
43	A
44	A
45	B
46	E

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Answers

- | | |
|----|---|
| 6 | E |
| 7 | B |
| 8 | D |
| 9 | D |
| 10 | C |

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| 4 | D |
| 5 | B |
| 6 | C |

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Answers

- | | |
|---|---|
| 1 | B |
| 2 | A |