

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

1	A
2	C
3	E
4	B
5	E

MCQ TEST (1)

Answering Instructions for this section

Each of the questions that follows consists of an incomplete statement or question followed by five suggested completions or answers. For each question mark the ONE completion or answer which is most correct.

1. Regarding the sole of the foot:

- (A) The plantar arteries lie between the second and third layer of muscles
- (B) The medial plantar nerve supplies sensation to the medial 1½ toes
- (C) The tendon of tibialis posterior is inserted into the tuberosity of the navicular
- (D) The sensation to the sole is entirely supplied by the medial and lateral plantar nerves
- (E) An L₄ root lesion causes inability of ankle plantar flexion

Answer: C

2. Regarding the inguinal canal:

- (A) The roof is formed by the lower edges of external oblique and transversus abdominus
- (B) The weak transversalis fascia forms part of the posterior wall in its medial aspect
- (C) Pectineus is a posterior relation of the femoral ring
- (D) The external spermatic fascia is derived from the transversalis fascia
- (E) The ilioinguinal nerve enters the inguinal canal through the deep ring

Answer: C

3. Regarding the calf:

- (A) Flexor digitorum longus crosses deep to tibialis posterior and flexor hallucis longus
- (B) The origin of soleus bridges over the popliteal vessels and deep peroneal nerve
- (C) The main calf muscle in action during gentle walking is gastrocnemius
- (D) The posterior tibial vessel lie posterior to flexor digitorum longus at the flexor

- (E) The lateral head of gastrocnemius is longer than the medial side and hence more easily injured

Answer: D

4. Regarding the posterior triangle of the neck:

- (A) The cutaneous branches of the cervical plexus arise from behind sternocleidomastoid.
- (B) The greater auricular nerve supplies the posterior neck to the superior nuchal line
- (C) The accessory nerve gives off the inferior root of the antra cervicalis
- (D) The phrenic nerve derives mainly from the C₃ nerve root
- (E) The superior belly of omohyoid crosses the lower part of the triangle

Answer: A

5. Regarding nerves and muscles of the hand:

- (A) The radial artery forms the superficial palmar arch
- (B) The hypothenar palmar space contains no long flexor tendons
- (C) The synovial sheath of the flexors to the index finger is in continuum with the common flexor sheath
- (D) Opponens pollicis arises from the flexor retinaculum and the scaphoid
- (E) Flexor pollicis brevis function is a reliable guide to median nerve function

Answer: B

6. Regarding acid-base balance:

- (A) In respiratory acidosis renal tubular H⁺ function is increased
- (B) The PKa of the bicarbonate system is >.10
- (C) In chronic metabolic acidosis glutamate is metabolised to glutamate is metabolised to glutamine in increased amounts
- (D) Hb O₂ is a better buffer than Hb
- (E) Carbonic anhydrase is present in the serum

Answer:

7. Regarding the O₂ - Hb dissociation curve:
- (A) A fall in [H⁺] concentration shifts the curve to the right
 - (B) The Bohr effect describes the shift of chloride out of the red cell with Hb and O₂ binding
 - (C) Suddenly arriving at high altitude shifts the curve to the right
 - (D) Storage of blood shifts the curve to the right
 - (E) Venous blood Hb has an O₂ saturation of 75%
8. Regarding embolism:
- (A) All pulmonary emboli arise from the deep veins of the lower leg
 - (B) Arterial air embolism is a potential consequence of pulmonary barotrauma
 - (C) Fat embolism syndrome consists of hypoxia, CNS dysfunction and digital ischaemia
 - (D) Thrombosis of the superficial veins has similar embolic potential to those in the deep veins
 - (E) Arterial emboli arising from the heart most commonly lodge in the legs

Answer: B

9. Regarding venous pressure:
- (A) Large veins offer little resistance to blood flow
 - (B) Venous pressure in the sagittal sinus is about -25 mm Hg
 - (C) Peripheral venous pressures are not increased in the early stages of heart failure
 - (D) Venous pressure in the neck veins is negative
 - (E) The muscle pump of peripheral veins reduces the pressure in the veins when standing from 90 mm Hg to 50 mm Hg

10. Regarding transmission of pain:

- (A) KAPPA receptors mediate the analgesia and respiratory depression caused by opioids
- (B) The 'gate' of spinal cord regulation of pain impulse transmission is located in the dorsal columns
- (C) ACTH, MSH, opioids and growth hormone are derived from the same precursor molecule
- (D) Substance P is the neurotransmitter in pain conducting aberrant fibres
- (E) Perception of pain requires an intact cerebral cortex

11. Regarding the sensory nerve pathways:

- (A) C fibres are myelinated
- (B) First order neurone conducting proprioceptive stimuli cross the midline and ascend in the dorsal column
- (C) Second order pain and temperature neurons ascend in the anterior spinothalamic tract
- (D) Proprioceptive fibres synapse in the dorsal horns of the spinal cord
- (E) Fibres in the lateral spinothalamic tract are laminated with fibres from sacral segments lateral compared to cervical segments