

**In each question, select ONE best alternative from A, B, C, D and E.**

**Indicate your answer by completely blackening the appropriate circle for that question in the MCQ answer sheet.**

**If you wish to change your answer, make sure your first answer is completely erased.**

**Do NOT mark the answer sheet beyond Q 32.**

### **Question 1**

Passive insufficiency ....

- i) is where the muscle cannot stretch out enough for both of the joints to move through their full range
- ii) is where the biarticular muscle cannot shorten enough to do all the movements of the joints it crosses
- iii) an example is not being able to extend the knee on a flexed hip
- iv) an example is the inability to make a strong fist when the wrist is in flexion
- v) an example is the inability to fully flex the knee when the hip is in extension
- vi) an example is being able to passively flex your fingers by extending your wrist

Choose the most suitable combination

- A) i & vi
- B) i & iv
- C) ii & vi
- D) i & iii
- E) ii & v

### **Question 2**

If the median nerve is damaged at the elbow:

- A) Dorsal cutaneous distribution of the hand is affected
- B) Adduction of the wrist is still possible
- C) Thumb movement is unaffected
- D) Hand grips not involving the thumb can still be performed to optimum ability.
- E) Flexion at the wrist is unaffected

### **Question 3**

The short head of biceps femoris is:

- A) a flexor of the hip
- B) a hamstring muscle
- C) supplied by the tibial nerve
- D) developmentally ventral
- E) none of the above

### **Question 4**

The Axillary Nerve:

- A) is a ventral nerve arising from the brachial plexus
- B) supplies latissimus dorsi
- C) passes between latissimus dorsi and teres major
- D) supplies teres minor
- E) none of the above

### **Question 5**

The tibialis anterior muscle:

- A) inverts the foot at the subtalar joint
- B) flexes the ankle joint
- C) receives innervation from the tibial nerve
- D) crosses the knee and ankle joints
- E) none of the above

**Question 6**

Which of the following is **NOT** supplied by the ulnar nerve?

- A) Skin of the little finger and half of ring finger
- B) Most intrinsic of the hand
- C) Pronator teres
- D) Flexor carpi ulnaris
- E) Flexor digitorum profundus

**Question 7**

The lateral rectus muscle is:

- A) an intrinsic muscle of the eye
- B) supplied by the Abducens nerve (CN VI)
- C) an adductor of the eye
- D) supplied by the Oculomotor nerve (CN III)
- E) an elevator the eye

**Question 8**

Which of the following is **NOT** correct regarding rectus femoris?

- A) It is developmentally a dorsal muscle of the limb
- B) It inserts onto the tibia via the patellar tendon
- C) It is supplied by the tibial nerve
- D) It is a flexor of the hip
- E) It develops embryologically from hypaxial musculature

**Question 9**

Regarding the knee joint, which of the following is **incorrect**?

- A) The deep part of the medial collateral ligament attaches to the medial meniscus.
- B) The lateral meniscus is C shaped.
- C) Both collateral ligaments prevent hyperextension
- D) The posterior cruciate ligament attaches to the back of the intercondylar area of the tibia.
- E) The lateral collateral ligament may be derived from the peroneus longus muscle

**Question 10**

A fracture of the middle humerus, damaging the radial nerve would probably lead to:

- A) A loss of thumb flexion
- B) A loss of shoulder extension
- C) A loss of metacarpophalangeal extension
- D) A loss of abduction at the glenohumeral joint
- E) A loss of scapula depression

**Question 11**

The carpal tunnel:

- A) contains the median nerve and the ulnar nerve
- B) contains the palmaris longus muscle
- C) is the area superficial to the flexor retinaculum
- D) does **NOT** contain either the ulnar nerve or ulnar artery
- E) is between the carpal and metacarpal bones

**Question 12**

Regarding the hamstring muscles –

- A) They take origin from the ischium
- B) They are innervated by the common peroneal nerve
- C) Adductor magnus is in no way like a hamstring muscle
- D) A and C are correct
- E) B and C are correct

**Question 13**

The following statements about muscles at the gluteal region are correct **EXCEPT**:

- A) Gemellus superior and gemellus inferior are lateral rotators of thigh at hip joint
- B) Obturator internus and quadratus femoris are innervated by nerves from sacral plexus
- C) Gluteus maximus supports the hip bone during the swing phase of walking
- D) Gluteus maximus is a powerful extensor of hip joint
- E) Gluteus minimus is supplied by superior gluteal nerve

**Question 14**

The radial nerve:

- A) is homologous with the tibial nerve in the lower limb
- B) stems from the lateral cord of the brachial plexus
- C) supplies the biceps muscle
- D) is sensory to the dorsum of the middle, ring and little fingers
- E) when damaged, can result in a loss of wrist extension

**Question 15**

The anterior divisions of the brachial plexus

- A) give rise to the median and ulnar nerves and supply anterior forearm muscles and intrinsic hand muscles
- B) give rise to obturator, median, and ulnar nerves and supply anterior arm, forearm and intrinsic hand muscles
- C) give rise to radial, median and ulnar nerves and supply posterior arm, forearm and intrinsic hand muscles
- D) give rise to musculocutaneous, median, and ulnar nerves and supply anterior arm, forearm and intrinsic hand muscles
- E) give rise to axillary and radial nerves and supply deltoids, posterior arm and extensors of the wrist and digits

**Question 16**

The dorsal interossei of the hand:

- A) adduct the fingers
- B) flex the metacarpophalangeal joints
- C) are supplied by the radial nerve
- D) arise from the tendons of flexor digitorum profundus
- E) flex the interphalangeal joints

**Question 17**

If the axillary nerve is damaged:

- A) the biceps brachii muscle is paralysed
- B) loss of sensation over the entire arm occurs
- C) there is paralysis of the deltoid muscle (anterior, middle and posterior parts)
- D) flexors of the wrist are paralysed
- E) there is paralysis of the deltoid muscle (anterior part only)

**Question 18**

*Pure* elevation (without any adduction or abduction) of the eyeball is produced by which of the following?

- i) superior oblique
- ii) superior rectus
- iii) inferior oblique
- iv) lateral rectus

- A) (i) & (ii)
- B) (ii)
- C) (i) & (iv)
- D) (ii) & (iii)
- E) (iii) & (iv)

**Question 19**

The Ophthalmic Nerve:

- A) is the second division of the trigeminal nerve
- B) supplies the muscles of mastication
- C) passes through the foramen rotundum
- D) supplies the area of skin derived from the embryonic frontonasal process
- E) gives off the infraorbital nerve

**Question 20**

Which of the following upper limb nerve(s) can be considered to be homologous with the Tibial nerve?

- i) Ulna nerve
- ii) Median nerve
- iii) Musculocutaneous nerve
- iv) Pectoral nerves
- v) Axillary nerve

- A) (i), (iii) & (v)
- B) (ii)
- C) (i), (ii) & (iii)
- D) (ii) & (iv)
- E) (i) & (ii)

**Question 21**

The Trigeminal Nerve:

- A) is the nerve of the second pharyngeal arch
- B) has only sensory branches
- C) innervates muscles of facial expression
- D) innervates tensor tympani and tensor palati
- E) exits the skull through the foramen magnum

**Question 22**

All of the following describe the Facial nerve (CN VII) **EXCEPT**

- A) Exits the cranial cavity through the internal acoustic meatus
- B) Supplies the stapedius muscle in the middle ear
- C) Provides motor innervation to the muscles of mastication
- D) Provides taste to the anterior 2/3 of the tongue
- E) Provides parasympathetic innervation to submandibular and sublingual glands

**Question 23**

The lateral meniscus of the knee:

- A) Is C – shaped
- B) Attaches from the lateral epicondyle to the apex of the fibula
- C) Is attached laterally and can slide on the tibia
- D) Is attached medially and can slide on the tibia
- E) Prevents hyperextension of the knee

**Question 24**

The short head of biceps femoris is:

- A) one of the hamstring muscles
- B) in the anterior compartment of the thigh
- C) innervated by the tibial division of the sciatic nerve
- D) a flexor of the leg at the knee
- E) takes origin from the ischial tuberosity

**Question 25**

The hamstring muscles are:

- A) innervated by the common peroneal nerve
- B) extensors of the leg
- C) in the anterior compartment of the thigh
- D) biceps femoris (long head and short head), semitendinous & semimembranosus.
- E) all arise from the ischial tuberosity.

**Question 26**

Which of the following muscles is **NOT** an infrahyoid strap muscle?

- A) sternothyroid
- B) sternohyoid
- C) stylohyoid
- D) thyrohyoid
- E) omohyoid

**Question 27**

Which of the following pairs of muscles are **NOT** homologous?

- |    | <u>Upper Limb</u>              | <u>Lower Limb</u>         |
|----|--------------------------------|---------------------------|
| A) | Extensor digitorum             | Extensor digitorum longus |
| B) | Extensor carpi ulnaris         | Peroneus tertius          |
| C) | Flexor carpi radialis          | Tibialis posterior        |
| D) | Extensor carpi radialis longus | Peroneus brevis           |
| E) | Pronator teres                 | Popliteus                 |

**Question 28**

Which of the following is **UNTRUE** regarding the cubital fossa?

- A) It is laterally bounded by the brachioradialis muscle
- B) It contains the median nerve
- C) It is medially bounded by the supinator muscle
- D) The bicipital aponeurosis and deep fascia form the roof
- E) The tendon of the biceps brachii resides in the fossa

**Question 29**

Regarding the flexor digitorum profundus muscle:

- A) It is supplied entirely by the ulnar nerve
- B) It acts to flex the elbow
- C) It is a superficial muscle
- D) It is a developmentally dorsal muscle
- E) It acts to flex the distal interphalangeal joints of the medial four digits

**Question 30**

The Gluteus Maximus Muscle:

- A) is supplied by the superior gluteal nerve
- B) is said to be homologous with deltoid in the upper limb
- C) is one of the group of 6 lateral rotators of the hip joint.
- D) acts through the iliotibial tract to prevent full extension of the knee joint.
- E) is an abductor of the hip active during the stance phase of locomotion.