PLEAS READ CAREFULLY

The paper that follows contains 120 questions. You should attempt every question.

There are three types of questions. The rules for selecting the correct answer are shown at the beginning of each section.

Ordinary pencils should be used for marking the answer sheets. Pens or biros are not permitted.

Question: 1.005, 1.016, 1.017, 1.026, 1.029, 1.034, 1.039, 1.042, 1.043 and 1.051 refer to photographs in the accompanying attachment.
THIS SECTION CONTAINS QUESTIONS WITH ONE CORRECT ANSWER ONLY.

THE NUMBERS IN THIS GROUP RUN FROM 1.001 TO 1.016
Each of the questions that follows consists of an incomplete statement or question followed by 5 suggested completions or answers. For each question select the ONE completion or answer which is most appropriate and blacken the circle corresponding (A,B,C,D,E) opposite the question number.

1.001 In a posterior approach to the hip:
   A. Piriformis lies superior to gluteus minimus
   B. Piriformis lies superior to obturator internus
   C. Piriformis lies inferior to quadratus femoris
   D. Piriformis lies inferior to inferior gemellus
   E. Piriformis is in different muscle plane from obturator internus and quadratus femoris

1.002 The sigmoid colon
   A. terminates at the rectum anterior to the sacral promontory
   B. in the pelvis, lies adjacent to the bladder and uterus
   C. has sparse appendices epiploicae
   D. is supplied by parasympathetic fibres from the vagus nerve
   E. has lymphatics which drain to internal iliac lymph nodes

1.003 The Coeliac Trunk
   A. Commences at L1 Vertebral Level
   B. Is the main artery supplying the midgut
   C. Divides into its branches in the posterior wall of the lesser sac
   D. Gives origin to the right gastric artery
   E. Lies inferior to the medial arcuate ligament

1.004 Which of the following statements regarding the arterial blood supply of the rectum are correct?
   A. the principal blood supply of the rectum is from the inferior rectal artery
   B. the superior rectal artery crosses the ureter anterior to the bifurcation of the left common iliac artery
   C. the inferior rectal artery has few anastomoses with the middle and superior rectal arteries
   D. the inferior mesenteric artery becomes the superior rectal artery on crossing the pelvic brim
   E. the superior rectal artery divides into branches at S1 vertebral level, where the rectum begins

1.005 The structure immediately related to region A is: (refer to illustration number 1.005)
   A. the right bronchial artery
   B. the ductus venosus
   C. the left superior pulmonary vein
   D. the left pulmonary artery
   E. the left primary bronchus
1.006 Regarding the formation of the trachea

A. it starts as a dorsal outgrowth of the endodermal foregut
B. it commences at the level of the fourth cervical vertebrae and moves distally with development
C. failure of separation of the foregut from the trachea most commonly results in isolated oesophageal atresia
D. failure of complete fusion of the tracheoesophageal ridges may result in polyhydramnios in utero
E. in resuscitation of the newborn, the length of the trachea approximates the distance from the tragus of the ear to the tip of the nose

1.007 A midline longitudinal incision through the roof of the popliteal fossa will expose as the most superficial major structure:

A. Popliteal artery
B. Tibial nerve
C. Common peroneal nerve
D. Popliteal vein
E. Popliteus muscle

1.008 In a lateral approach to the proximal femur, which of the following vessels might be encountered:

A. Superficial circumflex iliac
B. Medial circumflex femoral
C. Perforating branches of profunda femoris
D. Lateral circumflex femoral
E. Descending genicular

1.009 Postoperatively, a patient complains of numbness of the anterior and medial thigh after extensive groin surgery. The cutaneous nerve least likely to have been affected is the:

A. Femoral branch of genitofemoral nerve
B. Obturator nerve
C. Saphenous nerve
D. Medial cutaneous nerve of thigh
E. Intermediate cutaneous nerve of thigh

1.010 Anterior relations of the common iliac arteries include all except:

A. Ureter
B. Sympathetic Trunk
C. Peritoneum
D. Superior rectal artery
E. Superior Hypogastric Plexus
1.011 All of the following vessels contribute segmental blood supply to the spinal cord EXCEPT

A. Vertebral Arteries
B. External Iliac Arteries
C. Intercostal Arteries
D. Costocervical Arteries
E. Lumbar arteries

1.012 The internal thoracic (internal mammary) artery

A. is separated from the pleura of the lung by the subclavian vein
B. gives off a single anterior intercostal branch in each intercostal space
C. has a superior epigastric branch that gives off anterior intercostal arteries along the costodiaphragmatic gutter below the sternum
D. is accompanied by a venae comitantes that enters into the subclavian vein
E. provides important perforating branches to the pectoralis muscle

1.013 The phrenic nerve

A. provides the sole motor supply to the diaphragm
B. supplies sensory fibres to the visceral pleura
C. on the left passes deep to the vagus nerve just above the aortic arch
D. on the right splits (ramifies) above the level of the diaphragm
E. in the neck descends on the scalenus anterior muscle anterior to the prevertebral fascia

1.014 Which of the following structures is not attached to the coracoid process of the scapula

A. short head of biceps brachii muscle
B. trapezoid ligament
C. pectoralis minor muscle
D. the conoid ligament
E. subclavius muscle

1.015 The articular fibro-cartilaginous disc of the distal radio-ulnar joint may be attached to

A. the ulnar notch of the radius
B. the styloid process of the radius
C. the head of the radius
D. the tip of the styloid process of the ulna
E. the ulnar collateral ligament

1.016 Which statement is most true with regard to the illustration (refer to illustration number 1.016)

A. the structure marked 'A' has a constant attachment for flexor carpi radialis
B. avascular necrosis of the distal pole is common in a fracture to structure 'A'
C. the structure marked 'C' has a bony prominence, which gives attachment to both the flexor and extensor retinaculae
D. the structure marked 'B' is the most commonly dislocated bone in the carpus
E. the structure marked 'B' often articulates with the ulna when the wrist is in radial deviation
THIS SECTION CONTAINS QUESTIONS WHICH REQUIRE YOU TO RELATE TWO STATEMENTS. THERE IS ONLY ONE CORRECT ANSWER.

THE NUMBERS IN THIS GROUP RUN FROM 1.017 TO 1.025
The questions that follow consist of an assertion or statement (S) in the left-hand column and a reason (R) in the right-hand column. For each question select the most appropriate response and blacken the circle according to the rules below:
Blacken A if S is correct and R is correct and is a valid explanation of S
Blacken B if S is correct and R is correct but not a valid explanation of S
Blacken C if S is correct and R is incorrect
Blacken D if S is incorrect and R is correct
Blacken E if S is incorrect and R is incorrect

1.017
S. The immediate relation of structure "A" in the image is the superior gluteal artery. (refer to illustration number 1.017)
Because R. The superior gluteal artery, deep to gluteus maximus, emerges superior to piriformis.

1.018
S. Damage to the ilioinguinal nerve during appendicectomy can predispose to an indirect inguinal hernia
Because R. The ilioinguinal nerve supplies the conjoint tendon

1.019
S. A intra-cavernous aneurysm of the internal carotid artery may cause ipsilateral partial ptosis and a small pupil
Because R. The oculomotor nerve lies lateral to the expanding aneurysm

1.020
S. The internal iliac arteries, via their internal pudendal branches, supply the crura and bulb of the penis
Because R. The internal pudendal arteries travel anteriorly through the deep perineal pouch within the urogenital diaphragm

1.021
S. In an adult, the full urinary bladder may be aspirated suprapublically without entering the peritoneal cavity
Because R. The filling bladder pushes the peritoneal lining away from the lower abdominal wall

1.022
S. If an intervertebral disc herniates it usually does so posterolaterally
Because R. Ligamenta flava is relatively inelastic

1.023
S. A penetrating wound of the wrist at the level of the distal wrist crease just to the ulnar side of the flexor carpi radialis may result in weakness of thumb movement
Because R. Adductor pollicis is supplied by the deep branch of the ulnar nerve
1.024
S. Lateral rotation of the humerus is necessary for abduction of the gleno-humeral joint beyond 90°

Because R. deltoid tends to pull the humerus upwards unless supraspinatus initiates abduction

1.025
S. A lesion involving C5 and C6 nerve roots results in loss of abduction at the shoulder

Because R. the C5 and C6 nerve roots are distributed to biceps brachii muscle
THIS SECTION CONTAINS QUESTIONS EACH OF WHICH HAS FOUR SUGGESTED/completions OR ANSWERS. EACH COMPLETION/ ANSWER MAY BE TRUE OR FALSE.

PLEASE INDICATE BOTH “TRUE” AND “FALSE” COMPLETION/ ANSWERS.

THE NUMBERS IN THIS GROUP RUN FROM 1.026 TO 1.052
Incomplete statements or questions are followed by 4 suggested completions or answers of which any number may be 'TRUE' the remainder 'FALSE'. Blacken the oval against each letter (A,B,C,D) on the answer sheet according to whether the completion(s)/answer(s) is/are 'TRUE' (T) OR 'FALSE' (F). You may blacken up to 4 ovals per question.

1.026 The structure X: (refer to illustration number 1.026)

   A. Traverses foramen ovale
   B. distributes to the anterior 2/3 of the tongue
   C. lies deep to the posterior belly of digastric muscle
   D. passes lateral to the internal and external carotid arteries

1.027 The right renal artery

   A. arises at the level of the 1st lumbar vertebra
   B. crosses the right crus and psoas muscles
   C. runs anterior to the inferior vena cava
   D. is shorter than the left renal artery

1.028 The cystic artery

   A. typically arises from the hepatic artery proper
   B. usually passes behind the cystic duct to reach the neck of the gallbladder
   C. if thrombosed, frequently causes gallbladder necrosis
   D. runs with the cystic vein

1.029 At C (refer to illustration number 1.029)

   A. The ascending branch of the left colic artery lies anteriorly
   B. The left sympathetic trunk is a posterior relation
   C. The left ureter is immediately anterior
   D. Posteriorly, the hemiazygos vein is formed from the union of left lumbar veins

1.030 Which of the following structures pass through the superficial inguinal ring?

   A. The internal spermatic fascia
   B. The external spermatic fascia
   C. The ilioinguinal nerve
   D. The genital branch of the genitofemoral nerve

1.031 Which of the following correctly describe(s) the accessory nerve in the posterior triangle of the neck:

   A. It lies deep to the investing layer of cervical fascia
   B. It gives a branch to the sternocleidomastoid muscle
   C. It disappears beneath the anterior border of trapezius about 5 cm above the clavicle
   D. Accidental nerve injury can be tested by asking the patient to shrug the shoulders against resistance
1.032 The cervical oesophagus

A. is related posteriorly to longus capitis muscle
B. is supplied by oesophageal branches of the inferior thyroid artery
C. has venous drainage to the brachiocephalic veins
D. enters the mediastinum to the left of the midline

1.033 The prostate

A. contains glands embedded within skeletal muscle and connective tissue
B. provides about 30% of the volume of seminal fluid
C. receives a blood supply from the gonadal artery
D. has an embryonic origin from both endoderm and mesoderm

1.034 The structure labelled "A" (refer to illustration number 1.034):

A. is a posterior relation of the lumbar arteries
B. is an anterior relation of the lumbar sympathetic trunk
C. distally attaches to the greater trochanter of the femur
D. is crossed anteriorly by the lateral arcuate ligament

1.035 The central sulcus

A. lies behind the primary sensory cortex
B. is supplied by the middle and posterior cerebral arteries
C. separates the frontal and temporal lobes
D. lies in front of the primary motor cortex

1.036 The cerebellum

A. is connected to the midbrain, pons and medulla oblongata by the superior, middle and inferior cerebellar peduncles
B. has two hemispheres united by the vermis
C. gives rise to the fifth cranial nerve
D. occupies the posterior cranial fossa

1.037 The urachus

A. is the remnant of the obliterated allantois
B. persists in the adult as the medial umbilical ligament
C. is attached to the umbilicus
D. is attached to the pubic symphysis

1.038 The pretracheal fascia

A. its upper limit is bounded by the hyoid bone and thyroid cartilage
B. lies deep to the thyroid gland
C. fuses with the adventitia over the aortic arch and fibrous pericardium
D. has no attachment to the trachea
1.039 The vessel demonstrated in this micrograph (refer to illustration number 1.039)

A. carries blood from the heart
B. has a thick intimal layer
C. has a muscular layer of circumferential and longitudinal smooth muscle fibres
D. has valves

1.040 In relation to the saphenous opening

A. The superficial circumflex iliac vein may form an important communication between the inferior and superior venae cavae
B. The superficial external pudendal artery usually runs anterior to the saphenous vein
C. Superficial inguinal lymph nodes converge toward the saphenous opening to enter the deep inguinal nodes
D. Lies at the level of the pubic tubercle and marks where the great saphenous vein enters the femoral vein

1.041 With cannulation of the Femoral Artery in the groin one would:

A. avoid the femoral Nerve on the medial side
B. aim just below the mid-point of the inguinal ligament
C. pass through the Femoral Sheath
D. be cannulating a continuation of the Internal Iliac Artery

1.042 In this image (refer to illustration number 1.042)

A. "1" is intimately related to the capsule of the knee joint
B. "2" lies between flexor hallucis longus and flexor digitorum longus
C. "3" divides into medial and lateral plantar arteries after passing beneath the flexor retinaculum
D. "4" is accompanied in the posterior compartment by a nerve

1.043 The structure labelled Y in the picture (refer to illustration number 1.043)

A. is mostly lined by transitional epithelium
B. is innervated predominantly by the inferior hypogastric plexus
C. is normally about 20cm long
D. lies within the corpus cavernosum

1.044 The Stellate Ganglion

A. lies inferior to the neck of the 1st rib
B. lies lateral to the superior intercostal artery
C. lies medial to the supreme intercostal vein
D. receives a white ramus from T1 spinal nerve
1.045 The diaphragm

A. receives motor innervation from the third to fifth cervical myotomes centrally and the lower thoracic nerves peripherally
B. receives its main blood supply from branches of the abdominal aorta
C. has a right crus that is pierced by the hemiazygos vein
D. at the level of T8 vertebrae is strongly attached to the adventitial wall of the IVC

1.046 The trochlear nerve:

A. emerges from the dorsum of the midbrain anterior to the superior colliculus
B. runs forward in the subarachnoid space to enter the middle cranial fossa dura where the tentorium cerebelli’s “free border” joins its attached anterior dural border
C. within the lateral wall of the cavernous sinus, it is crossed medially by the oculomotor nerve
D. enters the superior orbital fissure then crosses superior to the “tendinous ring” to reach the orbit’s medial wall

1.047 The right coronary artery

A. supplies the sinoatrial node in over half of cases
B. may have a dual origin with the conus branch from the right sinus of valsalva
C. supplies the posterior half of the interventricular septum
D. is accompanied by a corresponding draining vein

1.048 The pericardium

A. has an oblique sinus that is bordered by the pulmonary veins and inferior vena cava
B. has parietal serous and visceral layers supplied by the phrenic nerve
C. encloses the aorta and pulmonary trunk in separate sleeves of visceral pericardium
D. has a fibrous layer which is fused with the central tendon of the diaphragm

1.049 Regarding blood supply of the lung

A. There are usually two bronchial arteries, one on each side
B. Alveoli contain a rich capillary plexus supplied by bronchial arteries
C. Pulmonary veins form from tributaries that closely follow the bronchi
D. Two pulmonary veins leave each lung hilum

1.050 Regarding lymphatic drainage of the lung

A. a deep lymphatic plexus runs independently of the branches of the pulmonary vessels and bronchi
B. the pulmonary lymphatic vessels originate in a superficial subpleural plexus
C. lymphatic vessels from the upper lobe pass exclusively to the superior tracheobronchial nodes
D. the superficial and deep lymphatics rarely communicate except in the hilar regions
1.051 In the photograph of the hand the tendon marked by the arrow 'B' (refer to illustration number 1.051)

A. shares a synovial sheath with other tendons under the extensor retinaculum
B. has a mesotendon (vinculum) just proximal to the metacarpophalangeal joint
C. is the only extensor tendon to the middle finger
D. inserts by its central slip into the distal phalanx of the middle finger

1.052 The lesser tuberosity of the humerus

A. gives the main attachment to the coracohumeral ligament
B. gives attachment to the teres minor muscle
C. gives attachment to the infraspinatus muscle
D. gives attachment to the transverse ligament covering the long tendon of the biceps
Anatomy Practise MCQ Paper
Illustration Number 1.029
Anatomy Practise MCQ Paper
Illustration Number 1.042
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