PRACTICE TEST

ANATOMY **Simple choice questions** Please select only one correct answer

Define the sternal angle

a. junction between the sternum and the 1st rib

b. junction between the crura of the xyphoid process

c. junction between the body of sternum and the xyphoid process

d. junction between the manubrium and the body of sternum

e. junction between the sternum and the clavicle

Name the parts of the *lower ankle joint* (or talotarsal joint)

a. talocrural and subtalar joints

b. talocrural and talocalcaneonavicular joints

c. talocrural joint together with the tarsal sinus

d. talocalcaneonavicular and subtalar joints

e. transverse tarsal and subtalar joints

Which of the following is NOT TRUE concerning the platysma

a. Invaginated by the superficial cervical fascial layer

b. Belongs to the muscles of facial expression

c. The facial nerve contributes to its innervation

d. The lower edge of the muscle reaches the clavicle.

e. Prevents the collapse of the superficial cervical veins

Which is NOT a connection of the infratemporal fossa?

a, foramen ovale b, foramen spinosum ***c, foramen rotundum***

d, inferior orbital fissure e, pterygomaxillary fissure

Select the bone forming part of the lateral wall of the orbit

a. nasal b. ethmoid **c. sphenoid** d. palatine e. lacrimal

The intervertebral disc is composed of the following parts

a. pars compacta and pars spongiosa

b. pars centralisand pars marginalis

c. elastic and hyalin cartilages

d. anulus fibrosus and nucleus pulposus

e. cartilagineous and vertebral parts

Which muscle is responsible for the supination of the foot?

a, tibialis anterior b, peroneus longus c, peroneus tertius d, soleus e, quadratus plantae

Which muscle lifts the eyebrow?

a, procerus nasi b, corrugator supercilii ***c, frontal belly of occipitofrontalis***

d, orbicularis oculi e, levator labii superioris aleque nasi

Which ligament is ATTACHED to the bodies of the vertebrae?

a, Interspinous ***b, anterior longitudinal lig.*** c, supraspinous d, lig. flavum e, sacrospinous lig.

Which bone represents the highest point in the transverse arch of the foot?

a, Cuboid b, Trochlea of talus ***c, Intermediate cuneiform*** d, Lateral cuneiform e, Navicular

Select the type of the median atlantoaxial joint!

a, ginglymus (hinge) ***b, trochoid joint*** c, spheroid joint d, saddle joint e, ellipsoid joint

TRUE concerning the pectoralis major muscle:

a, Inserts on the deltoid tuberosity of the humerus.

b, Together with the deltoid it forms the deltoideopectoral groove containing the axillary artery

c, It is responsible for the adduction and anteversion (flexion) of the abducted arm.

d, Innervated by the radial artery e, Covered by the thoracodorsal fascia

Which bones compose the floor of the orbit?

a, orbital surface of maxilla + orbital process of palatine bone

b, orbital surface of frontal bone + zygomatic bone

c, orbital process of etmoid + orbital surface of maxilla

d, orbital process of maxilla + orbital process of ethmoid bone

e, orbital surface of maxill + greater wing of sphenoid

Which statement is TRUE for the extensors found on the forearm?

a, They are innervated by the median nerve. ***c, Abductor pollicis longus is a member of this group***

b, Most of them originate from the medial epicondyle of humerus or from the adjacent areas.

d, Pronator quadratus is found in this group. e, Palmaris longus is a member of this group.

Select the TRUE answer listing the borders of the carotid trigone!

a, anterior edge of sternocleidomastoid + scalenus anterior + mylohyoid

b, inferior belly of omohyoid + anterior belly of digastric + sternohyoid

c, body of mandible + mylohyoid + common carotid artery

d, posterior belly of digastric + anterior margin of sternocleidomastoid +superior belly of omohyoid

e, posterior margin of sternocleidomastoid + inferior belly of omohyoid + sternohyoid

Which vessel forms the plantar arch?

a, medial plantar artery b, peroneal artery c, anterior tibial artery

d, lateral plantar artery e, common interosseous artery

Which vessel passes through the carpal tunnel?

a, ulnar artery b, common interosseous artery c, radial artery d, princeps pollicis artery **e, none of these**

Define the axis of the „grinding movement" of the temporomandibular joint :

a, a line connecting the two mandibular foramina b, a line between the angles of the mandible

c, a line connecting the heads of the mandible d, vertical line through the mental spine

e, a vertical line running through the head of the mandible (alternating between the sides)

Which structure is found at the junction of the middle and posterior cranial fossae?

a, groove for the sigmoidal sinus b, petrotympanic fissure c, jugular foramen, pars venosa

d, superior margin of the petrous part of temporal bone e, posterior margin of the lesser wing

Which of the following is found right under the sustentaculum tali?

a, tendon of peroneus longus b, posterior tibial artery ***c, tendon of flexor hallucis longus***

d, tibial nerve e, tendon of flexor digitorum longus

Multiple choice questions Please select ALL (2-5) correct answers!

TRUE for the vertebrae

a, Each vertebra has a body ***b, The lumbar vertebrae have a bean shaped body***

c, Roots of the spinous processes of the cervical vertebrae enclose the transverse foramina

d, Thoracic vertebrae possess two costal foveae to articulate with the heads of the ribs

e, The seventh cervical vertebra is the „prominent vertebra"

Select the TRUE statements concerning the femoral canal!

a, It is a virtual space filled by connective and adipose tissues.

b, The internal opening corresponds to the lacuna musculonervosa of the subinguinal hiatus.

c, The superior border of the internal opening is formed by the inguinal ligament.

d, The external opening corresponds to the saphenous hiatus.

e, It is located in the lateral aspect of the iliopectinate fossa.

The following statements are TRUE

a. Sutures belong to the class of syndesmoses.

b. In a synchodrosis, the space between the articulating bones is filled by cartilage.

c. The pubic symphysis corresponds to a hemidiarthrosis.

d. The articular disks are composed of hyalin cartilage.

e. The movements of the hinge joint are flexion and extension.

Select the connections opening into the middle nasal meatus!

a, Nasolacrimal canal ***b, Aperture of the maxillary sinus*** c, Aperture of the sphenoidal sinus

d, Aperture of the frontal sinus (via ethmoid infundibulum) e, Posterior ethmoidal air cells

Select the TRUE statements concerning the cervical fasciae!

a, The superficial lamina forms a capsule around the thyroid gland.

b, The superficial layer continues in the superficial pectoral fascia of the thorax.

c, The pretracheal fascia forms a sheath around the infrahyoid muscles.

d, The cervical fasciae keep the the cervical veins open (preventing them from collapsing).

e, The sternocleidomastoid muscle is invested by the pretracheal fascia.

Select the articulating surfaces of the proximal radioulnar joint!

a, Radial notch of ulna b, Ulnar notch of radius c, Head of the ulna

d, Articular circumference of the head of the radius e, Fovea of the head of the radius

Which of the followings belong to the connections of the nasal cavity?

a. foramen rotundum ***b. spehnopalatine foramen*** **c. nasolacrimal canal**

d. incisive canal e. greater palatine foramen

HISTOLOGY

Simple choice questions Please select only one correct answer!

TRUE concerning reticular fibres:

a, contain type II collagen ***b, also referred as to argyrophilic fibres***

c, can be dissolved by boiling d, contribute to the basement membrane

e, the biggest proportion is synthesized by hepatocytes

The lamina basalis will be composed of the

a. the lamina reticularis and the lamina rara **b*. the lamina lucida and the lamina densa***

c. the lamina adherens and the str. basale d. the str. basale and the str. germinativum

e. the str. reticulare and the lamina fibroreticularis

What is characteristic for the I (isotropic) bands of striated muscles?

a, They are stained dark with Chicago blue ***b, One 'I band' belongs to two adjacent sarcomers*.**

c, They are found in the middle of the sarcomer d, Mainly constituted by myosin.

e, An 'M line' is seen in the middle using the electron microscope

26. Where do intercalated discs occur in the cardial muscle tissue?

a. Along the A bands ***b. Along the Z bands*** c. Along the I bands d. Along the H line.

e. Cardiac muscle tissue does not contain intercalated discs.

What is NOT TRUE for fibrocartilage?

a, Contains relatively few cells b, Covers articulating surfaces of the sacroiliac joint.

c, Taken the fine structure it is very similar to the dense connective tissue.

d, Found on the articulating facets of the temporomandibular joint. ***e, Contains type II collagen only.***

What is contained in the canaliculi ossei (bony canaliculi)?

a, Osteoprogenitors b, Nucleus of osteocyte c, Osteoclast

d, Osteocyte filopodium e, Blood

Which cells forms the myelin sheath in the peripheral nervous system?

a, astrocyte b, myelocyte c, oligodendrocyte d, satellite cell ***e, Schwann cell***

Which of the following organs contains stratified columnar epithelium?

a. part of the male urethra b. gall bladder c. urinary vesicle

d. first part of the ureter e. the epithelial layer covering the umbilical cord

TRUE for stratified squamous keratinized epithelium:

a, The stratum lucidum contains keratohyalin granules

b, The stratum planocellulare contains flattened, elongated cells

c, Connective tissue papillae interdigitate with the epithelium.

d, The outermost layer is the stratum planocellulare

e, Surface specialisations are frequently seen in the outermost layer.

Which of the following is characteristic for serous acini?

a, the cytoplasm is basophilc due to the numerous mitochondria

b, always have a wide lumen

c, their secretory product can be visualised by PAS reaction

d, the secretum is rich in proteins

e, they discharge their secretional product by holocrine secretion

Which of the following is TRUE for cardiac muscle?

a, The histological unit is the muscle fibre b, Has no cross-striation

c, There are several junctional structures found within the intercalated disks of Eberth

d, Nuclei are located immediately below the sarcolemma.

e, A type of cardiac muscle, found in the conducting system, is called Purkinje cell

Multiple choice questions Please select ALL (2-5) correct answers!

What is true concerning hematopoiesis?

a, All granulocytes derive from a common precursor cells called 'myeloblasts'.

b, During erythrocytopoiesis the cell will grow in size while the nucleus is rejected.

c, Erythrocytes develop from megakaryoblasts.

d, Under normal circumstances only a few reticulocytes may be found in bone marrow.

e, Appearance of „band" neutrophils in the blood smear has clinical consequencies.

TRUE for desmin:

a,It forms the endomysium enclosing skeletal muscle fibres.

b, It is an intermediate filament characteristic for muscular tissue.

c, Anchors T-tubules d, Attached to the sarcoplasmic reticulum

e, links Z lines

Select the TRUE statements

a. Endothelial cells are mesenchymal derivatives .

b. The small intestine is lined by cuticular simple columnar epithelium.

c. Pseudostratified columnar epithelium is found in a part of the male urethra.

d. Mesothelial cells are of endodermal origin.

e. The epithelium of respiratory mucosa corresponds to stratified non-ciliated columnar epithelium.

EMBRYOLOGY

Simple choice questions Please select only one correct answer!

What do the intervillous spaces contain?

a, Fetal blood ***b, Maternal blood*** c, The mixture of maternal and fetal blood.

d, Blood with high CO2 levels e, Amniotic fluid

Which is NOT TRUE for the lateral plate of the intraembryonic mesoderm?

a, Consists of somatic and splanchnic layers

b, It is not segmented

c, It is continuous with the extraembryonic mesoderm

d, It is also named as gononephrotom

e, The two 'pleuras' enclose the intraembryonic coelom

Syntitiotrophoblast of the human placenta

a, is derived from the amnionic epithelium.

b, is constituted by maternal tissues.

c, arise from the trophoblast cells.

d, is isolated from maternal blood by the cytotrophoblasts.

e, is isolated from moternal blood by endothelial cells.

Derivatives or remains of the notochord will be found here:

a, spinal ganglia b, vertebral canal c, neural tube ***d, nucleus pulposus*** e, spinal cord

Which structure is NOT a derivative of the primitive streak?

a, endoderm b, intermedate mesoderm c, paraxial mesoderm

d, lateral plate mesoderm ***e, amnioblasts***

Which of the following is a prerequisite for implantation?

a. „hatching" b. crossing over c. gastrulation d. acrosome reaction e. LH surge

The following structure will give rise to the muscles of the developing limb

a. sclerotom b.epaxial myotom/epimer c. dermatome **d.hypaxial myotom/hypomer** e. syndetom

Where do the first blood islands appear during early embryonic development?

a, in the prechordal plate ***b, in the wall of yolk sac*** c, within septum transversum

d, in the cranial mesoderm e, on the two sides of the oropharyngeal membrane

Which part of the endometrium composes the maternal placenta?

a. decidua capsularis b. decidua marginalis c. decidua parietalis

d. decidua basalis e. chorion laeve

What surrounds the oocyte after ovulation?

a, theca interna+ theca externa b, follicular cells c, zona pellucida

d, zona pellucida + corona radiata e, follicular cavity

Select the derivatives of sclerotome!

a, cartilage and bone b, segmental skin components

c, gonads d, segmented muscular components

e, peripheral nervous system

The structure connecting the midgut with the yolk sac is called:

a, allantois b, neurenteric canal c, notochordal canal

d, vitellointestinal or omphaloenteric duct e, septum transversum

What happens during gastrulation?

a, formation of the three germ layers b, development of the morula c, cleavage

d, development of the bilaminar embryonic disk e, development of the blastocyst

During the migration of the morula an inner cavity is formed, so it develops into the:

a, bilaminar embryonic disk **b, blastocyst** c, mulberry

d, trophoblast e, extraembryonic mesoderm

Multiple choice questions Please select ALL (2-5) correct answers!

Find the components of a sperm!

a, acrosom ***b, head*** ***c, neck*** ***d, flagellum*** e, zona pellucida

Find the components of the morula!

a, blastocoel ***b, trophoblasts*** c, amnion

d, embryoblasts ***e, zona pellucida***

TRUE for the umbilical cord

a, Derives from the connecting stalk. b, Contains one umbilical artery and two veins.

c, The surface is covered by a stratified amniotic epithelium.

d, The major component is named as Wharton's jelly.

e, A remnant of the allantois is found in the centre of the cord.

Which structures are found in the umbilical cord of mature newborn infants?

a, One umbilical artery and two umbilical *veins* ***b, Two umbilical arteries and one umbilical vein***

c, Remnant of allantois ***d, Wharton's jelly*** ***e, Amnionic epithelium***

Select the bones which undergo intramembranous ossification!

a, clavicle b, ethmoidal bone ***c, parietal bone*** ***d, frontal bone***

e, mandible (major part)