

نموذج امتحانات الفرقة الاولى

امتحان عام ٢٠١٧

**Q1. Choose the correct answer (2 marks)**

1) Ossa diaphragmatic of camel is an example of ..... bone.			
a) flat	b) long	c) splanchnic	d) short
2) All the following are types of suture fibrous joints EXCEPT .....			
a) plain	b) serrated	c) foliate	d) none of previous
3) The muscle has two bellies is called ..... muscle			
a) bicipital	b) digastric	c) bipennated	d) all previous
4) When the ball is larger than the socket, this synovial joint is called.....			
a) enarthrosis	b) spheroidal	c) ginglymus	d) pivot
5) All the following are ornamental structures in fowl EXCEPT .....			
a) comb	b) ricti	c) snood	d) none of previous
6) All air sacs except .....have indirect connection with parabronchi through recurrent bronchi			
a) cervical	b) clavicular	c) abdominal	d) thoracic
7) The terminal dilated part of avian ductus deferens which acts as a storage organ for sperms is called.....			
a) papilla	b) lymphatic fold	c) receptacle	d) spermatic fossulae
8) .....has heavy muscular stomach which called Gizzard stomach.			
a) Carp	b) Tilapia	c) Catfish	d) Mugil

**Q2. Complete the following sentences (4 marks)**

- 1) The synovial structures associated with the skeletal muscles are..... and.....
- 2) The avian testis is cooled by.....while that of mammals is cooled mainly by.....
- 3) The right lobe of liver in fowl is drained to gall bladder by ..... duct then the bladder is drained into ascending duodenum by .....duct.
- 4) The air sacs have diverticula are..... and.....
- 5) The part of the oviduct that forms the chalaza is....., while that forms the shell membranes is.....
- 6) The fish cranial kidney has.....function, while the caudal kidney has..... function.

- 7) All the arteries of fish carry oxygenated blood except .....and .....
- 8).....and ..... are types of round scales in fish.

**Q3. Which structure are we talking about (scientific term)? (3 marks)**

1	The spongy bone between the two compact layers in the flat bones of the cranium of the skull
2	A thin connective tissue membrane covers the outer surface of bone except at the articular cartilage
3	Hair like rudimentary feathers which have only few barbs at their tips.
4	A yellowish green thick membrane lined the gizzard internally.
5	Cartilaginous tubercles arises from gill arch cranially.
6	A chamber of heart of fish receive blood from hepatic vein and duct of Cuvier.

**Q4. Enumerate the following (4 marks; each point 0.5 mark except the fourth point)**

- 1) Functional types of skeletal muscles.
- 2) The main arterial blood supply of bone.
- 3) Horny structures in bird.
- 4) Modifications in bird skeleton that enhance its ability to fly.
- 5) The types of digestion in birds and their anatomical sites.
- 6) Cartilages in syrinx and larynx of birds.
- 7) Structures of egg can be found in region between the yolk and shell.

**Q5. Compare between the following (9 marks; each point 2 marks except the first point).**

- 1) The long bone and the reduced long bone.
- 2) The openings, papillae, and salivary glands in roof and floor of oropharynx in fowl.
- 3) Intromittent and non-intromittent phallus.
- 4) The claspers and genital papilla.
- 5) Dorsal and pelvic fins.

**Q6. Illustrate with diagram only (3 marks)**

- 1) Structure of the synovial joint.
- 2) The cloaca of cock.
- 3) The external anatomical features of Tilapia.

**Q1. What are we talking about (scientific term)? (2 marks).**

1.	A double membrane structure containing several lytic enzymes that help the sperm to penetrate the ovum during fertilization.
2.	A temporary communication between amniotic cavity and yolk sac formed due to losing of the notochordal canal floor.
3.	A crescent-shaped area anterior to the posterior marginal zone in bird blastomeres.
4.	Tertiary villi attached to the decidua basalis to fix the embryo into the uterine wall.
5.	A dark region in the midline of blastoderm epiblast which helps in gastrulation.
6.	The part of the blastocyst which will form the embryo.
7.	The first trigeminal layer formed during gastrulation as a result of ingression of epiblast cells through primitive streak.
8.	A fetal membrane which is lined by endoderm and covered by splanchnic mesoderm.

**Q2. Correct the following sentences by changing the underlined words (2 marks)**

1. The kidney of all animals is retroperitoneal except the right kidney of dog.
2. The suburethral diverticulum is present in the vaginal vestibule of mare.
3. The right kidney lies more cranial than the left kidney in all domestic animals except in goat.
4. The right kidney of horse is called wandering kidney.
5. Dog sperm can not fertilize cow oocyte due to presence of species specific corona radiata.
6. The hind limb muscles are originated from the sclerotome.
7. Syncytium is a multi-nucleic layer without cell boundaries arises from fusion of inner cell masses.
8. Hermaphrodite is a sterile cattle female born twin to a male and has XX and XY chromosome

**Q3. Enumerate the following (4 marks).**

- 1- The ligaments of urinary bladder and ovary. (1 mark)
- 2- Layers of scrotum (from external to internal).
- 3- Contents of the spermatic cord.
- 4- Constituents of the umbilical cord and their fate. (1 mark)
- 5- Different types of mesoderm and their sites of ingression.
- 6- Different types of mono and dizygotic twins.

**Q4. Explain on embryological basis (3 marks).**

1. Migration of PGCs in mammalian embryo differs from that in chick embryo.
2. Offsprings of equine are born covered by their amnion unlike those of ruminant.
3. Freshly ejaculated sperms are unable to fertilize oocytes.
4. The type of ova in bird is anisolecithal ova.
5. Polyspermy is rare but not impossible.
6. Implantation is usually delayed in equines than in ruminants.

**Q5. Compare between the following (9 marks).**

1. Ovary of mare and cow.
2. Kidney of pig and dog.
3. Prostate gland in horse and ox.
4. Glans penis in different domestic animals.
5. Placenta of cow and mare. (2 marks)
6. Different types of cleavage.
7. Spermatogenesis and oogenesis. (2 marks)

**Q6. Illustrate with diagram only (2 marks)**

- 1- Blood supply of kidney
- 2- Structure of testis.

**Q7. Complete the missing parts (3 marks)**

	<b>Primordia</b>	<b>Derivatives</b>
1.		Colliculus Seminal
2.	Gubernaculum in male	
3.		Vagina
4.		Urinary bladder
5.	Uretic bud	
6.		Epoöphoron

**Answer all the following questions.**

QI	Choose the correct answer (15 marks)
1.	In dog, the ulna is.....tubular bone, while in horse it is..... tubular bone. (..... /.....) A) long/reduced long      B) reduced long/long      C) long/long      D) reduced long/reduced long
2.	The.....is the largest sesamoid bone, while the .....bone is the smallest sesamoid bone. (..... /.....) A) patella/navicular      B) carpal/ patella      C) patella/carpal      D) none pf previous
3.	The bone marrow presents in.....of the flat bone of the skull. A) medullary cavity      B) bone marrow cavity      C) diploe      D) none pf the previous
4.	The periosteum covers the whole bone <b>except</b> at..... A) articular surface      B) articular cartilage      C) synovial fossa      D) all previous
5.	All these can be found in the long bone of an old animal <b>except</b> ..... A) yellow marrow      B) growth plate      C) gelatinous marrow      D) medullary cavity
6.	The type of the suture joint in which the edge of one bone fits in a recess of an adjacent bone is..... A) plane      B) foliate      C) plain      D) serrated
7.	The uniting medium in the costochondral joint is..... A) fibrous membrane      B) synovia      C) hyaline cartilage      D) fibrocartilage
8.	All these structures are intra-articular components of the synovial joint <b>except</b> ..... A) cruciate ligament      B) menisci      C) collateral ligament      D) synovia
9.	The synovia can be found in all the following structures <b>except</b> ..... A) fascia      B) bursa      C) tendon sheath      D) shoulder joint cavity
10.	The type of the shoulder joint is.....synovial joint. A) simple      B) spheroidal      C) congruent      D) all previous
11.	All these are true about the stifle (femro-tibial) joint <b>except</b> ..... A) has incongruent surfaces      B) hinge synovial joint      C) has cruciate ligament      D) has menisci
12.	In the hip joint, the size of the ball is ..... that of the socket. A) equal to      B) larger than      C) smaller than      D) none of the previous

QI	Choose the correct answer (100 points)			
	(A)	(B)	(C)	(D)
1.	The..... plane is vertical on limb long axis and divides limb into proximal and distal parts.			
	median	paramedian	dorsal	transverse
2.	The scapula is ..... bone.			
	appendicular	flat	intramembranous	all previous
3.	The manus region contains all type of bones except..... bones			
	flat	short tubular	short	reduced long
4.	The ulna of dog can grow in .....			
	one direction proximally only	one direction distally only	one direction proximally and distally	two directions
5.	In long bone of young animals, the bone marrow can be found in the .....			
	diaphysis	metaphysis	epiphysis	A and C
6.	The blood supply of the shaft comes from.....artery.			
	metaphyseal	periosteal	diaphyseal	epiphyseal
7.	The suture in which the edges of bones are teeth like is the .....suture			
	plane	foliate	serrated	squamous
8.	Which joint of the following showed a very limited movement in adult horse?			
	Mandibular symphysis	Costochondral junction	Physis	Radio-ulnar
9.	All the followings are true for the long bone of young animal except.....			
	has red bone marrow	has metaphyseal artery	has epiphyseal plate	none of previous
10.	Which of the following structure is a periarticular component of the synovial joint?			
	articular surface	articular cartilage	joint capsule	menisci
11.	The synovial fossa is a depression in ..... of synovial joint.			
	articular surface	articular cartilage	synovial bursa	synovial membrane
12.	The articular cartilage is not covered by.....			
	periosteum	synovia	synovial membrane	A and C

## نموذج امتحانات الفرقة الثانية

امتحان عام ٢٠١٧

### QI. Complete the following sentences (4 marks).

- 1- The ..... and .....nasal cartilages are absent in equine.
- 2- The paranasal sinus absent in pig is.....while that absent in cat is.....
- 3- The thyrohyoid articulation of larynx is absent in ..... due to absence of ..... of thyroid cartilage.
- 4- The costal pleura is reflected ventrally through ..... line and dorsally through ..... line to form the mediastinal pleura.
- 5- The tracheal bronchus is characteristic to the lung of.....and ventilates the..... lobe.
- 6- The kidneys are retroperitoneal in all animals except ..... kidney of .....
- 7- The urinary bladder is fixed in position by ..... and ..... ligaments.
- 8- The remnants of gubernaculum are..... and.....ligaments.

### QII. Choose the correct structure from the same row for each animal (2 marks).

<b>Horse</b>	Saccus cecus	Crest shape palatine raphe	Lentiform lingual papillae	Right medial lobe of liver	Portal ring in pancreas	Dental pad
<b>Cow</b>	Renosplenic ligament	Twisted cecum	Papillary process of liver	Ampulla coli	Disc shape spiral intestinal loop	Iliocecolic opening
<b>Pig</b>	Serrated palatine ridges	Sublingual caruncle	Torus linguae	Rostral plate	Palatine salivary gland	Triangular lig. of liver
<b>Dog</b>	Blind incisive papilla	Zygomatic salivary gland	Anal sac gland	Torus pyloricus	Double U-shape ascending colon	simple depression splenic hilus

### QIV. Enumerate the following (4 marks)

- 7- Openings in buccal vestibule and sublingual floor of dog.
- 8- Layers of abdominal wall and mesentery through which a sharp object passes from right flank till ending in the dorsal ruminal sac.
- 9- Contents of inguinal canal in bitch.
- 10- Teniae in the large intestine of horse.
- 11- Paranasal sinuses of equine and large ruminants.
- 12- Contents of the thoracic cavity that are not situated in the mediastinum.
- 13- Layers of scrotum from external to internal.
- 14- Ligaments and joints of horse larynx.

**Group (III) Compare between two animals labeled with (+) in each row (10 marks).**

	<b>Points of comparison</b>	<b>Horse</b>	<b>LR*</b>	<b>SR**</b>	<b>Pig</b>	<b>Dog</b>
1	Parotid duct and its papilla			+	+	
2	Rumen		+	+		
3	Biliary duct system (diagram only)			+		+
4	Ventral nasal conchae	+	+			
5	Lobation and lobulation of lung	+			+	
6	Type and shape of left kidney	+	+			
7	Testis (position, long axis, and attachment of epididymis)		+		+	
8	Glans penis	+				+
9	The portio vaginalis and fornix			+		+
10	Position and structure of ovary	+	+			

\* LR= large ruminants; \*\*SR= small ruminants

**QV. Explain on anatomical basis (2 marks)**

- 1- Mouth of ruminants adapted with rough food.
- 2- The stomach tube should introduce through the nose in equine and mouth in ruminants.
- 3- Vision of the gall bladder differs according to animal species.
- 4- Herniation of descending duodenum is impossible in equine.

**QVI. Illustrate with diagram only (3 marks)**

- 3- The blood supply of kidney.
- 4- Prostate gland of ruminants.
- 5- Structure of the pharynx and its associated tonsils in cow.

**All question should be answered.**

**I) What are we talking about? (2 marks)**

- 1) A transverse band of fibers presents caudal to pons and gives rise to CrN VII and VIII.
- 2) A fissure divides the cerebellum into corpus cerebelli and flocculonodular lobe.
- 3) A part of metathalamus connects with caudal colliculus and relays acoustic impulse.
- 4) A part of limbic rhinencephalon presents in the caudomedial part of the lateral ventricle.
- 5) A muscle presents ventromedially in the lower eye lid and innervated by facial nerve.
- 6) A structure lies at the optic papilla and enables cat eyes to glow at night.
- 7) A space in iridocorneal angle drains the excess of aqueous humor into circulation.
- 8) A cartilage of external ear has styloid process and foramen.

**II) Correct the following sentences by changing the underlined bold words (2 marks)**

1. The 8<sup>th</sup> cervical nerve emerges cranial to **the 7<sup>th</sup> cervical vertebrae** in horse.
2. The blood supply of hind limb arises from **internal iliac** artery
3. The right ventricle is separated from pulmonary artery **by tri-cusped valve**
4. The **parotid** lymph node of cow is regularly examined during meat inspection.
5. The blood supply of brain arises from **occipital artery**.
6. **Efferent lymph vessels** transport lymph from the capillary region to the lymph node.
7. **The internal capsule** connects the rostral colliculus with the lateral geniculate body.
8. The **eye pupil** presents at upper middle part of iris pupillary border in equine only.

**III) Enumerate (6 marks).**

1. The branches of cranial mesenteric artery.
2. The openings of two atria of heart.
3. The structures form the cauda equina.
4. The recesses and foramina associated with brain ventricles.
5. The contents of ear tympanic cavity.

6. The sensory structures and ducts of the membranous labyrinth.

**IV) Which nervous structure(s) damaged in animals attended to vet clinic showing the following clinical signs? When applicable mention the branch and its functional component and the cranial nerve from which it is originated (5 marks)**

1. Increased muscle tone and spastic paralysis in the fore and hind limbs.
2. Loss of sensation for lower lip.
3. Lateral strabismus in the left eye and a medial strabismus in the right eye.
4. Left deviation of neck.
5. Loss of sensation in the upper eye lid.
6. Sweeting of only left side of neck after running.
7. Loss of sensation to upper check teeth.
8. Atrophy (sweeney) of supraspinatus and infraspinatus muscles.
9. Roaring sound during inhalation (laryngeal hemiplegia).
10. Loss of taste sensation in whole tongue.

**V) Compare between the following (4 marks)**

- 1- Spinal and cranial dura matter (spaces, fixation, and folds).
2. Two different fiber types of cerebral white matter with examples.
3. Cervical and thoracic part of sympathetic trunk. (2 marks)

**VI) Illustrate with diagram only (3 marks).**

1. The lymphocenters of neck of large ruminants.
2. Blood supply of thoracic wall.
3. Lacrimal apparatus.

**VII) Neuroanatomy case (3 marks)**

**An animal suffers a complete damage to its right optic nerve and right oculomotor nucleus.**

- 1) How would a light shone in the left eye affect the size of the left and right pupils?
- 2) How would a light shone in the right eye affect the size of the left and right pupils?
- 3) How would the animal react to a threaten gesture if left eye is covered? Why?
- 4) How would the animal react to a threaten gesture if right eye is covered? Why?
- 5) Would the animals' right eyelids close when they are touched? Why?
- 6) Draw visual fields for both eyes and indicate the site of vision loss.

QI	Choose the correct answer (76 points, 19 marks)
1.	The phrenico-pericardiac ligament is present only in ..... A) cow                      B) dog                      C) pig                      D) horse
2.	All the following arteries arise from descending aorta <b>except</b> ..... artery. A) coronary                      B) costocervical                      C) vertebral                      D) internal thoracic
3.	All the following structures open into the right atrium <b>except</b> ..... A) caudal vena cava                      B) cranial vena cava                      C) coronary sinus                      D) ductus arteriosus
4.	The number of papillary muscles in the wall of right ventricle is..... while in the left is ..... A) 2/3                      B) 3/3                      C) 3/1                      D) 3/2
5.	The..... is a muscular ridge that projects between conus arteriosus and right atrioventricular opening. A) fossa oval                      B) ligamentum arteriosum                      C) supraventricular crest                      D) pectinate muscle
6.	The right ventricle characterized by all the following <b>except</b> ..... A) reach the apex of heart                      B) supplied by coronary A                      C) gives pulmonary A                      D) semilunar in C.S.
7.	All the followings are components of heart skeleton <b>except</b> ..... A) anulus fibrosus cordis                      B) fibrous trigone                      C) os cordis                      D) septomarginal band
8.	The left subclavian artery in the pig takes origin from the ..... A) brachiocephalic trunk                      B) aortic arch                      C) ascending aorta                      D) descending aorta
9.	In ....., the common carotid arteries arise separately from the brachiocephalic trunk. A) equine                      B) goat                      C) cattle                      D) dog
10.	The..... is a primary lymphatic organ located at thoracic inlet and has two lobes enclosed in a capsule. A) thymus                      B) thyroid gland                      C) parathyroid gland                      D) tonsil
11.	The..... is a lymphatic structure that transports lymph from the capillary region to the lymph node. A) efferent lymphatic vessel                      B) afferent lymphatic vessel                      C) lymphatic trunk                      D) lymphocenter
12.	The.....is irregular sac-like dilatation that receives lumbar, intestinal and celiac trunk. A) tracheal duct                      B) visceral trunk                      C) thoracic duct                      D) cisterna chyli

QI	Choose the correct answer (100 points)			
	(A)	(B)	(C)	(D)
1.	All the followings are true for the tunica flava except.....			
	deep fascia	present in dog	elastic fibers	yellow
2.	All the following muscles inserted in the linea alba except..... abdominal muscle.			
	external oblique	internal oblique	transverse	rectus
3.	In ox, rectus abdominis muscle enclosed within the aponeurosis of ..... abdominal muscle(s).			
	internal oblique	external and transverse	internal and transverse	transverse
4.	All the following structures pass through the inguinal canal except .....			
	cremaster muscle	internal pudendal A	genitofemoral nerve	ilioinguinal nerve
5.	In monocular stomach of all animals, which gland can not be found at the lesser curvature?			
	Cardiac	Fundic	Pyloric	None of previous
6.	Saccus cecus is a large blind sac bulges from ..... and lined by..... epithelia.			
	fundus / fundic gland	cardia / cardiac gland	fundus / nonglandular	cardia / nonglandular
7.	All the followings are true for ventricular diverticulum except .....			
	small conical blind diverticulum	present in pig stomach	caudally directed	lined by non-glandular epithelia
8.	Tympany can be diagnosed by hearing gas sound at the ..... paralumber fosaa of .....			
	right / pig	right / cow	left / horse	right / horse
9.	The right longitudinal groove divided into dorsal and ventral parts which enclose .....			
	atrium ruminis	ruminal recess	insula ruminis	intraruminal opening
10.	In goat rumen, the ..... groove does not reach the ..... groove.			
	left longitudinal / caudal transverse	right longitudinal / caudal transverse	right longitudinal / cranial transverse	left longitudinal / cranial transverse
11.	The omasal curvature faces..... and to the.....			

	<b>dorso-caudally / right</b>	<b>ventro-cranially/ right</b>	<b>dorso-caudally / left</b>	<b>ventro-cranially / left</b>
<b>12.</b>	<b>All the following can be found inside the abomasum except the .....</b>			
	<b>gastric groove</b>	<b>spiral folds</b>	<b>nonglandular epithelia</b>	<b>torus pyloricus</b>