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Maharashtra Council of Agricultural Education and Research
Semester-end Examination

B.V.Sc & A.H.

SEMESTER : I
COURSE NO. : ANT - 112
CREDITS : 2 (1+1)
DAY & DATE : WEDNESDAY
19-1-94

ACADEMIC YEAR : 1993-94

TITLE : Anatomy - II

TOTAL MARKS : 40

TIME : 12.00 to 14.00 hrs.

Note : 1. All questions carry equal marks.

2. Solve any five questions from question Nos. 1 to 7.
3. Question Nos. 8, 9 and 10 are compulsory.
4. Draw neat diagrams wherever necessary

- Q. 1. Name the bones forming 'Os Coxae' and describe any one of them (ox).
- Q. 2. Describe the shaft and proximal extremity of femur (horse) and compare it with that of ox.
- Q. 3. What is diarthrodial joint ? Describe its structure.
- Q. 4. Enlist the cranial bones (ox) and describe any one of them.
- Q. 5. State the name, origin and insertion of the superficial muscles of the hip and thigh (medial and lateral) in ox.
- Q. 6. Write down the vertebral column formulae of ox, horse and dog and describe the typical vertebra of horse.
- Q. 7. Classify the bones with proper example.
- Q. 8. Fill in the blanks.
 1. are the regions in fore leg.
 2. The number of tarsals in ox is
 3. The first cervical vertebra is known as while second is known as
 4. are the unclassified variety of bones.
 5. is the bone of fore head.

Q.9. Match the pairs.

'A'

1. Odontoid process
2. Distal Sesmoid bone
3. Turbinate
4. Acromion process
5. Mental foramina

'B'

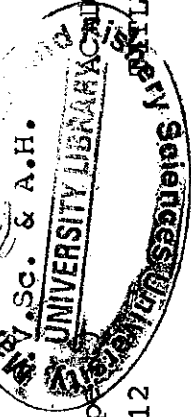
- a) Mandible
- b) Paired bone
- c) Scapula of ox.
- d) Axis
- e) Navicular bone

Q.10. Name the muscles responsible for the following :

1. Flexion of elbow.
2. Raising of tail
3. Lifting of hind limb
4. Expansion of thorax
5. Dilatation of nostrils.

MAHARASHTRA COUNCIL OF AGRICULTURAL EDUCATION AND RESEARCH

Semester Examination



SEMESTER : Ist (Repeatability)

COURSE NO : ANT - 112

CREDITS : 2 (1+1)

DAY & DATE : Saturday

: 3-6-95

: TIME : 9.00 to 11.00 hrs.

- NOTE :
1. All questions carry equal marks.
 2. Solve any five questions from Question Nos.1 to 7.
 3. Question Nos 8,9 and 10 are compulsory.
 4. Draw neat diagrams wherever necessary.

Q.1 Enlist the all bones which forms the pelvic cavity (ox) and describe the gross anatomy of any one of them.

Q.2 Name the different regions and corresponding bones of the fore leg and write the gross anatomy of shoulder bone in ox.

Q.3 Describe the formation of Hip joint.

Q.4 Name the muscles acting on shoulder joint of ox.

Q.5 Describe the proximal extremity of humerus bone and compare it with that of Horse and Dog.

Q.6 Write the vertebral formula (ox) and name the regions of the vertebral column and surface anatomy formed by the corresponding region.

Q.7 Describe the proximal extremity of tibia bone in ox and compare it with that of Horse and Dog.

Q.8 Fill in the blanks.

1. Total number of bones in the skeleton of ox are _____.
2. Ribs are classified as _____.
3. The trochanter tertius is present _____.
4. The manus of Dog consists of _____ digits.
5. The corpus of ox consists of _____ bones.

Q.9 Identify the bone from the following features.

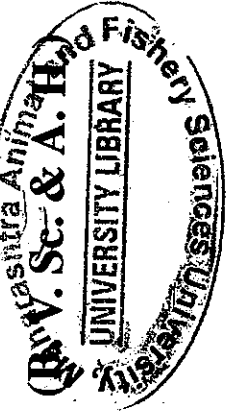
1. Ischial arch
2. Corocoid process
3. Coronoid process
4. Musculo-spiral groove
5. Supra condyloid fossa
6. Sulcus muscularis
7. Semilunar notch
8. Styloid process
9. Acetabulum
10. Inter condyloid cleft

Q.10 Rewrite the following sentences after making the corrections if any.

1. The shoulder region consists of humerus bone in ox.
2. Musculo-spiral groove is deeper and more spirally curved in humerus of ox.
3. The styloid process is absent in ulna bone of Horse.
4. The Fovea capitis in femur of horse is a deep notch cut into the head internally for the insertion of accessory and round ligament in ox.
5. The sacrum forms the group region of body, in ox.

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Maharashtra Council of Agricultural Education and Research
Semester-end Examination

OK
SEMESTER : I
COURSE NO. : ANT-112
CREDITS : 2 (1+1)
DAY & DATE : FRIDAY
23-12-1994



ACADEMIC YEAR : 1994-95

TITLE : Anatomy - II

TIME : 12.00 to 14.00 hrs. TOTAL MARKS : 40

- Note : 1) Question Nos. 1, 2 and 3 from Section 'A' are compulsory.
2) Solve ANY FIVE questions from Section 'B'.
3) All questions carry equal marks.
4) Draw the diagram wherever necessary.

SECTION 'A'

Q. 1. Fill in the blanks.

- 1) are the regions of the fore leg.
- 2) The total number of carpal bones in horse are
- 3) The bones which are unpaired, irregular in shape and median in position are called
- 4) is formed by the union of ilium, Ischium and pubis bones.
- 5) is a small narrow bone placed in front of the femoral trochlea being attached to the tibia by three extremely strong Ligaments.

Q. 2. Identify the bone from the following features.

- 1) Trochanter tertious 2) Infrapinatus fossa 3) Deltoid tuberosity
- 4) Odontoid process 5) Olecranon process

Q. 3. Write two differential points of the following bones in Cattle, Horse and Dog.

- 1) Proximal extremity of Humerus
- 2) Shaft of femur
- 3) Distal extremity of Radius
- 4) Distal extremity of Large metacarpal
- 5) Lateral surface of Scapula

SECTION 'B'

- Q. 4. Enlist all the bones which form the thoracic cavity of Ox and describe the gross anatomy of any one of them.
- Q. 5. Name all the bones, corresponding regions and joints of fore limb in Ox.
- Q. 6. Describe the gross anatomy of scapula bone in Ox and compare it with that of horse and dog.
- Q. 7. State the names, origins and insertions of the superficial lateral muscles of the hip and thigh regions of Ox.
- Q. 8. Classify the joints and describe the joints of the digit region in Ox.
- Q. 9. Give an account of muscles acting on the shoulder girdle.
- Q. 10. Name the different regions, corresponding vertebrae in vertebral column and write the gross anatomy of croup bone of Ox.
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SEMESTER : D.V.DC. & A.H.

ACADEMIC YEAR : 1995-96

TITLE : Anatomy-II

TOTAL MARKS : 40

CREDITS : 2 (1+1)

DAY & DATE: WEDNESDAY, 5.6.96

TIME : 9.00 to 11.00

NOTE : 1. Solve any five questions from 1 to 7 and question No.8, 9 and 10 are compulsory.

2. All questions carry equal marks.
3. Illustrate your answers with diagrams wherever necessary.

- Q.1. Give the classification of joints and describe the structure of 'true joint'.
- Q.2. Enlist the regions, joints and bones of fore leg (Ox).
- Q.3. Give an account of gross anatomy of femur (Ox).
- Q.4. Describe the lateral surface of scapula of horse and compare it with that of Ox and dog.
- Q.5. Describe the sacrum of Ox.
- Q.6. Classify the bones and describe the physical and chemical properties of the bones.
- Q.7. Describe the 1st cervical vertebra (horse).
- Q.8. Fill in the gaps :
 1. The upper jaw of ----- is devoid of teeth (incisors).
 2. Cornual process is the part of ----- bone.
 3. Infraorbital foramina is on ----- bone.
 4. ----- phalanx is enclosed in the hoof.
 5. The number of ribs in horse and ox is ----- and ----- respectively.

- Q.9. Differentiate the following :
 1. Visceral bones and pneumatic bones.
 2. 7th cervical and 1st thoracic vertebra (Ox).
 3. Last lumbar vertebra horse and ox.
 4. Synsarcosis and synarthrosis.
 5. Adduction and abduction.

- Q.10. Identify the bone from the following features :
 1. Supraorbital process.
 2. External acoustic meatus.
 3. Foramen magnum.
 4. Alar foramen.
 5. Extensor process.

Q.1. Describe the gross anatomical structure of the following (Any Three) (15)

1. Laryngeal cartilages
2. Urinary bladder of ox
3. External or Internal structure of rumen
4. Uterus of cow
5. Liver of cattle

Q . 2. Fill in the blanks. (05)

1. Esophageal groove extends from _____ to _____
2. The blind end of caecum in cattle is directed toward _____.
3. Guttural pouch is present in _____.
4. Carnassial tooth present in _____.
5. _____ kidney is fixed in the renal fossa of the liver.

Q . 3. Define the following terms (05)

1. Ansa spiralis
2. Margoplicatus
3. Wolf tooth
4. Frenum linguae
5. Corona glandis

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MAHARASHTRA VETERINARY COLLEGES EXAMINATION BOARD, MUMBAI
ANNUAL EXAMINATION
B.V.Sc. & A.H.

Year : First
Course No. : VAN - 121 & 122
Credits : 3+2=5
Day : Monday
Date : 6/8/2001
Academic year : 2000 - 2001
Subject : Anatomy
(Paper - II)
Time : 10:12:30
Total Marks : 75

- Note : 1) Use separate Answer book for each course.
 2) Solve any three questions from Section 'A' (VAN - 121)
 3) Section 'B' is compulsory (VAN - 121)
 4) Figures to the right side indicate the marks
 5) Illustrate the answers with the help of diagrams wherever necessary.

Course No. VAN - 121 Marks : 50
SECTION 'A'

- Q. 1. Describe the ventral and dorsal surface of brain (ox). (10)
 Q. 2. Describe the external structure of the heart including pericardium (10) (ox).
 Q. 3. Enlist the branches of the abdominal aorta and describe coeliac artery (10) in detail (ox).
 Q. 4. A Describe in brief the structure of hoof (horse). (5)
 B Describe in brief the various tunics of the eyeball. (5)

SECTION 'B'

Q. 5. Fill in the blanks : (10)

- Hepatic artery originates from _____ artery
- _____ cranial nerve is the longest cranial nerve
- _____ artery carries impure blood.
- In cattle, the cervical nerves are _____ numbers.
- The falx cerebri is located at _____
- In fetal heart, the foramina oval connects _____ to _____
- _____ gives the functional blood supply to the liver
- Horn core is supplied by _____ nerve.
- Splenic artery is the branch of _____ artery which is the branch of _____ artery.
- _____ and _____ nerves reaches up to the digit in forelimb

Q. 6. Answer in one sentence :

1. What is *Vaso-vesosum*?
2. What is *Ligamentum denticulatum*?
3. Define *ductus arteriosus*.
4. Name the auditory ossicles.
5. Name the purely sensory cranial nerves.
6. What is *cauda equina*?
7. Give the location of *stellate ganglion*.
8. What is *moderator band*?
9. How the *brachial plexus* is formed?
10. Give the location of *cisterna chyli*.

(10)
30

Course No. VAN - 122

Marks : 25

Q. 1. Answer the following questions (Any Three)

(15)

1. Describe the external and internal structure of the rumen
2. Write brief note on mammary gland of cow.
3. Describe the gross anatomical structure of lung of ox.
4. Describe the kidney of ox and compare with that of horse and dog.
5. Describe the gross anatomical structure of testicles and spermatic cord (ox).

Q. 2. Fill in the blanks :

(5)

1. Gular pouch is present in _____ and _____ unpaired cartilages of the larynx.
2. _____ and _____
3. Frenum linguae connects _____ and _____
4. Muscular bands and sacculations are present in _____
5. Anal glands are present in _____

Q. 3.

State true or false, if false write the corrected sentences :

(5)

1. Internal surface of the reticulum presents honey comb like structure.
2. Taste buds are associated with the filiform papillae.
3. Four pairs of the incisors are present in the upper jaw of cattle.
4. Cotyledons are absent in the uterus of cow.
5. Additional bronchus is given by the trachea in horse.

XXXXX

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, WAIKAPUR
ANNUAL BOARD THEORY EXAMINATION
B.V.Sc. & A.H.

YEAR : FIRST
COURSE NO. : VAN-121 & 122
CREDITS : 3 + 2
DATE : 10/10/2002
TIME : 10-13HRS

ACADEMIC YEAR
SUBJECT: Veterinary Anatomy
& Histology Paper-II
75
THURSDAY

NOTE : 1) Use Separate answer book for each course
2) Solve any THREE questions from Section - A
3) Section-B is Compulsory.
4) All question carry equal marks.

COURSE NO. : VAN-121 (Neurology, Angiology, Anesthesiology) MARKS : 50

SECTION 'A'

- Q.1 Write down the position of heart in ox and describe the internal structure of right atrium and ventricle. (10)
- Q.2 Give the site of attachment to the brain and point of exit from the cranial cavity of The trigeminal nerve. Describe the course and distribution of the mandibular Division of this nerve. (10)
- Q.3 Write short notes on ANY TWO
a) Describe the lacrimal apparatus of the eye.
b) Describe the supply of the cranial mesenteric artery in ox.
c) What is cisterna chyli and describe its formation. (10)
- Q.4 Name and describe the blood supply of intrathoracic branches of the subclavian artery. (10)

SECTION 'B'

- Q.5 Choose the correct answer (10)
- 1) The hypophysis is attached by infundibulum to -
a) thalamus b) tuber cinereum c) mammillary body
- 2) Parasympathetic fibers are supplied to most of the abdominal viscera by-
a) lumbar nerves b) splanchnic nerves c) Vagus nerve
- 3) The round ligaments of bladder are the remnants of _____ of the fetus.
a) umbilical veins b) ductus venosus c) umbilical arteries.
- 4) The cephalic vein drains blood from _____ region of the body.
a) head b) thorax c) forelimb.
- 5) The largest branch of abdominal aorta which supplies blood to abdominal viscera is-
a) cranial mesenteric artery b) celiac artery c) renal artery.
- 6) The taste papillae of posterior 1/3 of the tongue receive innervation of ____ nerve.
a) facial b) trigeminal c) glossopharyngeal
- 7) The rete mirabile cerebri is formed by the contribution from rete branches of maxillary, occipital and _____ arteries.
- 8) a) suervicial temporal b) mandibulo alveolar c) vertebral
The cochlear branch of _____ nerve supplies the organ of corti.
- 9) a) seventh b) sixth c) eighth
The horn receives nerve supply through _____ nerve.
- 10) a) corneal b) ethmoidal c) mental
The _____ artery terminates by dividing into cranial and caudal tibial arteries.
a) internal iliac b) Popliteal c) deep femoral.

- Q.6 a) Name the artery which supply the following structures. (5)
1) liver 2) lower cheek teeth 3) kidneys 4) Diaphragm 5) heart
- b) Name the nerves which innervates the following (5)
1) biceps brachi muscle 2) quadriceps femoris muscle 3) intrcostal muscle
4) larynx 5) retina.

COURSE NO. VAN-122

(Splanchnology)

MARKS : 25

SECTION 'A'

- Q.1 Give the position of all compartments of ruminant stomach and write internal structure of omasum. (10)
- Q.2 Write short notes on (any two) I) Liver of dog ii) Oviduct of fowl iii) Pleura (10)
- Q.3 Differentiate in between the following. (any two) (10)
i) Penis of bull and stallion ii) Left and right lung of ox
iii) Kidneys of ox and horse.
- Q.4 Compare the colon of ox and horse. (10)

SECTION 'B'

- Q.5 Answer in one word. (10)
- a) The name of opening of stenson's duct in the oral cavity.
b) The blind left extremity of stomach of horse.
d) The accessory sex gland found in the male dog.
e) Complete circulat tracheal cartilages are found in this species of animal.
f) A 'V' shaped pancreas is found in this species of animal.
g) Name one structure other than lung found outside the mediastinum.
h) Largest cecum is found in this species of animal.
i) Pars longa glandis is structure found in this organ.
j) Deepest interlobar fissures are found in the lungs of this species of animal.
- Q.6 Write TRUE or FALSE. Rewrite the false statements after doing correction. (10)
- a) The mammary glands are arranged in four rows in bitch.
b) The ceca are paired in dog.
c) The ventral median fibrous cord present in the tongue of dog is called os cordis.
d) Spirally twisted and tapering uterine horns are found in mare.
e) A triangular or comma shaped spleen is found in horse.

Year : I
Course No. : VAN-121, 122
Credits : 3+2 = 5
Day & Date : ~~Sunday~~, 26/08/2003

Academic Year : 2002-2003
Title : Gross Anatomy II & III
(Paper-II)
Max. Marks : 50 + 25 = 75
Time : 3 hrs.

Note : 1] Use separate Answer book for each course.

2] All questions carry equal marks.

3] Attempt any three questions from section 'A' of each course.

4] Section 'B' of each course is compulsory.

VAN-121 (2+1)

Neurology, Angiology, & Aesthesiology

(50)

Section 'A'

- Q.1 Describe in detail the ventricles of the brain and their interconnections. (10)
- Q.2 Describe in detail the atria of the bovine heart along with various openings in them. (10)
- Q.3 Enlist the intrathoracic branches and their supply of the common brachiocephalic trunk and thoracic aorta. (10)
- Q.4 Describe in detail the sagittal section of the brain of ox. (10)
- Q.5 Write short notes on: (10)

A. Brachial plexus of ox.

B. Blood supply and venous drainage of the udder.

Section 'B'

- Q.6 Define/Explain in brief the followings. (10)
1. Cauda equina
 2. Ductus arteriosus
 3. Efferent lymphatics
 4. Falx cerebri
 5. Stellate ganglion
 6. Diaphragm saliae
 7. Os-cordis
 8. Hiatus aorticus
 9. Jugular confluence
 10. Tuber cinerum

Q.7 Do as directed.

1. Name the longest cranial nerve and the largest cranial nerve.
2. Name the vessels originated from the left ventricle and the right ventricle.
3. Name the blood supplying network to the brain of ox.
4. Name the auditory ossicles.
5. Name the tunics of eyeball from inside to outside.
6. Give the name of motor cranial nerves.
7. Which cranial nerves are originated from dorsal aspect of brain?
8. Name the blood supply and nerve supply to the horn of ox.
9. Give the blood supply & nerve supply to the larynx of horse.
10. What is foramen ovale?

VAN-122 (1+1)

Splanchnology

(25)

Section 'A'

- Q.1 Describe the tongue of the ox. (5)
- Q.2 Write in brief the uterus of a cow and compare it with that of the horse. (5)
- Q.3 Describe in detail the larynx of the horse. (5)
- Q.4 Write in brief the left kidney of ox and compare it with right kidney. (5)
- Q.5 Write a note on testicles of a bull. (5)

Section 'B'

- Q.6 Define/Explain in brief the following. (5)

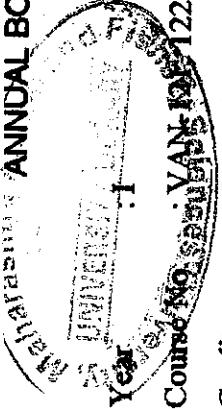
- 1. Lyssa
- 2. Trigonum vesicae
- 3. Margoplicatus
- 4. Apical bronchus
- 5. Corona glandis

- Q.7 Give the correct choice to the following. (5)

- 1. The pharynx opens into the oesophagus by
(A. Hiatus oesophageus, B. Hiatus oesophageus, C. Aditus larynges)
- 2. The lungs are not lobulated in
(Cattle, Horse, Dog)
- 3. Heart shaped kidney is present in
(Ox, Horse, Dog)
- 4. The left sided female genital organs are functional in
(Fowl, Dog, Horse)
- 5. The endocrine gland in close relation to the kidney is
(Testes, Adrenal, Pancreas)

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
ANNUAL BOARD THEORY EXAMINATION, B. V. Sc. & A. H.
(VCI - PATTERN)

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Academic Year : 2002-2003
Title : Veterinary Anatomy &
Histology (Paper-II)
Max. Marks : 75
Time : 10 to 13 hrs
Credits : 3+2 = 5
Day & Date : Friday, 13/6/2003

Note : 1] Use separate Answer book for each course. 2] Attempt any three questions from section 'A'
3] Section 'B' is compulsory. 4] Draw well labeled diagrams wherever necessary

VAN-121 (2+1) Neurology, Angiology, Anesthesiology (50)

Section 'A'

- Q.1 Describe the spinal cord and its meninges. Differentiate between cranial and spinal meninges. (10)
- Q.2 Describe the gross anatomical features of heart of ox and give details of interior of left ventricle. (10)
- Q.3 a) Describe the course and distribution of internal iliac artery in cow. (6)
b) Describe the course and blood distribution of common carotid artery and name its terminal branches (4)
- Q.4 Write short notes on any four. (10)
a. Cephalic vein
c. Cisterna chyl
e. Vascular tunic of eye ball
b. Cerebral ventricles
d. Cauda equina

Section 'B'

- Q.5 A. Choose correct answer from the bracket. (5)
a. Auditory ossicles are present in _____ ear.
(external, middle, internal)
b. _____ nerve supplies the extensor muscles of leg and pes region.
(radial, peroneal, ulnar)
c. _____ vein drains the food laden blood from the G. I. Tract.
(celiac, portal, internal iliac)
d. _____ artery is larger among the two arteries of coronary circulation.
(right, left, anterior)
e. _____ forms the roof of the fourth ventricle of the brain.
(cerebellum, fornix, septum pellucidum)
- B. Do as directed.
a. Enumerate no. of pairs of spinal nerves in each region in ox. (2.5)
b. Name the three short cuts of foetal circulation (1.5)
c. Name two major lymph nodes of head region (1.0)

Q. 6 Name the following. (10)

- a. Artery present in the spermatic cord
- b. Nerve supplying the horn core
- c. Largest nerve of the lumbosacral plexus
- d. Nerve supplying the diaphragm
- e. Nerve innervating the organ of corti
- f. Two paired visceral branches of abdominal aorta
- g. The cranial nerve present in the carotid sheath
- h. Nerve supplying the supraspinatus muscle
- i. Major artery of the tail
- j. One artery contributing to the rete mirabile cerebri

VAN-122 (1+1)

Splanchnology

(25)

Section 'A'

- Q. 1 Describe gross anatomy of the uterus of cow. (5)
- Q. 2 Write the course and relationship of oesophagus in different regions in ox. (5)
- Q. 3 Describe the lungs of ox and compare them with those of horse. (5)
- Q. 4 Write short notes on any two. (5)
 - a. Oviduct of hen
 - b. Kidney of ox
 - c. Serous membrane of thoracic cavity
 - d. Tongue of ox

Section 'B'

Q. 5 Prepare 10 meaningful anatomical terms using following words. (10)

major, plicatus, salivaris, bursa, vesicae, linguae, fissure, margo, papilla, ovarii, frenum, portal, guttural, calyx, phrenicus, pouch, os, caecus, trigonum, saccus.

6
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MAHARASHTRA ANIMAL & FISHERY SCIENCES UNIVERSITY, NAGPUR
ANNUAL BOARD THEORY EXAMINATION, B. V. Sc. & A. H.

Year : 1
Course No. : VAN-121, 122
Credits : 2+1 = 3, 1+1 = 2
Day & Date : Friday, 09/07/2004

Academic Year : 2003-2004
Subject : Veterinary Anatomy &
Histology (II)
Total Marks : 50+25 = 75
Time : 11.00 to 14.00 hrs.

Note : 1) Use separate answer book for each course.

- 2) Solve any Three questions from Section 'A' of each course.
- 3) Questions from Section 'B' of each course are compulsory.
- 4) All questions carry equal marks.

VAN-121 (2+1) (Gross Anatomy II) Neurology, Angiology and Aesthesiology (Marks 50)
Section-'A'

- Q. 1 Describe the gross anatomy of the spinal cord of cattle and write the nerves emerging from it.
- Q. 2 Describe the ventral surface of the brain of ox.
- Q. 3 Describe the interior of the heart of ox.
- Q. 4 Describe the eye ball of the ox.
- Q. 5 a) Describe the formation of the pelvic plexus and its branches in ox.
b) Describe the main branches of the abdominal aorta in cow.

Section-'B'

- Q. 6 Choose the most appropriate answer from the given multiple choice
- 1) The trigeminal nerve is :
a) Motor nerve
c) Sensory nerve
2) The Bulbus aorticus is present at the :
a) Termination of aorta
c) Beginning of aorta
3) The period gland is also called as :
a) Epiphysis cerebri
c) Crura cerebri
4) The largest cartilage of the external ear of the ox is :
a) Conchal
c) Annular
5) The longest nerve in the animal body is :
a) Median
c) Schiatic
6) The left auriculo-ventricular opening of the heart is guarded by the
a) Tricuspid
c) Semilunar valve
7) The 3rd and 4th ventricles of the brain are connecting through the opening
a) Foramina monro
c) Foramina of luschka
8) The vein superficially placed in the neck, occupying the furrow formed between the lower border of brachio-cephalicus and sterno manillaro muscle is the
a) The external jugular
c) The superficial temporal
9) The largest nerve in the body is
a) ~~Sciatic~~
c) Radial
10) The membranous curtain between the acoustic meatus and tympanic cavity of the ear
 - b) Mixed nerve
d) None of the above
 - b) Hiatus aorticus
d) None of the above
 - b) Hypophysis cerebri
d) None of the above
 - b) Scutiform
d) None of the above
 - b) Trigeminal.
d) Vagus
 - b) Bicuspid
d) Thebasian valve
 - b) Aqueduct of sylvius
d) Foramina of magendie
 - a) The external jugular
b) The internal jugular
d) The internal maxillary
 - b) Vagus
d) Femoral

- Q. 7 (A) Rewrite the statements after making necessary corrections, if required -
- 1) The thoracic duct is the largest blood vessel.
 - 2) The inner most covering of the brain is the duramater.
 - 3) The meningeal fold covering the pituitary gland is called as falx cerebri.
 - 4) There are generally 40 pairs of spinal nerves present in the ox.
 - 5) The single vein which drains blood from the dorsal walls of the left thoracic and abdominal cavities is called as portal vein.

(B) Define or Explain in brief -

- 1) Septum lucidum
- 2) Cysterna chyli
- 3) Ligamentum arteriosus
- 4) Os cardis
- 5) Sole of hoof

VAN-122 (1+1)

(Gross Anatomy -III) Splanchnology

(Marks-25)

Section - 'A'

- Q. 1 Describe in brief the liver of ox and compare it with that of horse.
- Q. 2 Describe in brief the uterus of cow and compare it with that of the mare.
- Q. 3 Describe in brief the penis of the ox and compare it with that of the dog.
- Q. 4 Describe in brief the left lung of ox and compare it with that of the poultry.
- Q. 5 Describe in brief the mammary glands of the cow and compare it with that of ewe.

Section - 'B'

- Q. 6 Choose the most appropriate answer from the given multiple choice -
- 1) An opening of oral cavity which communicates the pharynx is called as
 - a) Rima oris
 - b) Isthmus faucium
 - c) ~~Aditus oesophagi~~
 - d) Posterior nares
 - 2) The incisor teeth of the horse are
 - a) Hypsodont type
 - b) Brachyodont type
 - c) Polyphyodont type
 - d) None of the above
 - 3) The gall bladder is absent in
 - a) Goat
 - b) Dog
 - c) Cattle
 - d) ~~Horse~~
 - 4) The testicles of the cock are located within
 - a) Scrotum
 - b) Inguinal canal
 - c) Abdomen
 - d) None of the above
 - 5) The paired laryngeal cartilage is
 - a) Cricoid
 - b) Thyroid
 - c) Epiglottis
 - d) Arytenoid
- Q. 7 Give the answer in one or two words for the following.
- 1) The space at the middle of the thoracic cavity between the left and the right plural sacs.
 - 2) The diverticulum of the oesophagus at thoracic inlet in the fowl.
 - 3) The division of the cloaca in which the bursa fabricus opens.
 - 4) The space around the external os of the cervix in the anterior part of the vagina of the cow.
 - 5) The fibro muscular cord present in the tongue of the dog.

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
ANNUAL BOARD THEORY EXAMINATION, B.V.Sc. & A.H.

Year :
Course No. : VAN-111
Credits : 4
Day & Date : Tuesday, 30/05/2006

Academic Year : 2005-2006
Subject : Veterinary Anatomy - I
Total Marks : 50
Time : 09.00 to 11.00 hrs.

Answer any Three questions from Section - A.

- All questions from Section - B are compulsory.
- All questions carry equal marks.

Section - A

- Q. 1 Discuss the digit of ox and compare with the fowl with suitable well labeled diagram. (10)
- Q. 2 What is appendicular skeleton ? Describe any one bone of this region supporting with neat labeled diagram. (10)
- Q. 3 Describe the formation of bony thorax and write in detail gross anatomy of any one bone in cattle. (10)
- Q. 4 Give the name, origin, insertion and actions of the muscles of tail region in bullock with a suitable and well labeled diagram. (10)
- Q. 5 Give the detail account of knee joint in cattle. (10)

Section - B

- Q. 6 Answer the following in one sentence. (10)
- Give two examples of flat bone.
 - Define-anatomy.
 - What is the ratio of inorganic and organic matters of the bone ?
 - What is facet ?
 - Write about the coracoid process of scapula in horse .
 - Write about the median sacral crest in sacrum of dog .
 - Write about the deltoid tuberosity of humerus in dog ?
 - What is trochanter ?
 - What is the action of latissimus dorsi muscle.
 - What is fascia ?
- Q. 7 Each of the following question has four responses. Choose the correct response. (10)
- Medullary cavity is present in
 - Long bone
 - Flat bone
 - Short bone
 - Irregular bone
 - Vertebral formula in cattle is
 - C₇T₁₃L₆S₃Cy₆ 13-20
 - C₇T₁₃L₆S₅Cy₁₃₋₁₅
 - C₇T₁₃L₆S₅Cy₁₃₋₂₃
 - C₁₄T₆L₅14Cy₆
 - Proximal extremity of large metacarpel bone consists of
 - Three articular facets
 - Two articular facets
 - Two articular condyles
 - Four articular facets
 - Number of sesamoid bones in a hindlimb of ox are
 - 7
 - 5
 - 6
 - 8

- 5) Acromian process is absent in the scapula bone of
a) ox
b) dog
c) horse
d) fowl
- 6) The hardest bone in the skeleton of ox is
a) Frontal
b) Sphenoid bone
c) Petrous temporal bone
d) Squamous temporal bone
- 7) The immovable joint is designated as
a) Amphiarthrosis
b) Synarthrosis
c) Diarthrosis
d) All of the above
- 8) Muscles which are found attached to the skeleton is commonly called as
a) Striated muscle
b) Non striated muscle
c) Both of above
d) None of the above
- 9) The number of bones present in the shoulder girdle of fowl are
a) 1
b) 2
c) 3
d) 4
- 10) Examples of pivot joint is
a) Atlanto - axial articulation
b) Tempora-madibular articulation
c) Spheno-occipital articulation
d) None of the above

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MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
ANNUAL BOARD THEORY EXAMINATION, B.V.Sc. & A.H.

Year :
Course No : VAN-121 122
Credits : 2+1 = 3, 1+1 = 2
Day & Date : Wednesday, 31/05/2006
Academic Year : 2005-2006
Subject : Veterinary Anatomy - II
Total Marks : 50+25=75
Time : 09.00 to 12.00 hrs.

Note: 1) Use separate answer book for each course.

- 2) Solve any **Three** questions from Section - A.
- 3) All questions from Section - B are compulsory.
- 4) All questions carry equal marks.

VAN-121

Gross Anatomy – II
(Neurology, Angiology and Aesthesiology)

(Marks – 50)

SECTION – A

- Q.1 Describe the formation of brachial plexus and their distribution in cattle. (10)
- Q.2 Describe the interior of right auricle and left ventricle. (10)
- Q.3 Describe the cross sectional anatomy of spinal cord. (10)
- Q.4 Describe the course and the branches of internal iliac artery. (10)
- Q.5 a) Describe in brief the tunics of the eyeball. (05)
b) Describe the formation and course of external jugular vein. (05)

SECTION – B

- Q.6 Choose the most appropriate answer from the multiple choice given below. (10)

- 1) The splenic artery of ox arises by a common trunk with the _____
a) Right ruminal artery b) Left ruminal artery
c) Omaso abomasal artery d) Coeliac artery
- 2) The right artioventricular orifice is guarded by the _____
a) Bicuspid valve b) Tricuspid valve
c) Semilunar valve d) Monocuspid valve
- 3) The direct continuation of sciatic nerve is _____
a) Peroneal nerve b) Superficial peroneal nerve
c) Posterior cutaneous nerve d) Tibial nerve
- 4) The space between the duramater and archnoid is called as _____
a) Epidural space b) Subdural space
c) Subarchnoid space d) None of these

- 5) Ciliary body of the eyeball consist of _____
a) Ciliary ring b) Ciliary processes
c) Ciliary muscle d) All the these
- 6) Cornual artery is the branch of _____ artery.
a) Internal carotid b) Sperficial temporal
c) Caudal auricular d) Messetric
- 7) Spinal cord caudally terminates in a tapering pointed manner at the level of second sacral vertebra called as _____
a) Cauda equina b) Filum terminale
c) Conus medularis d) None of these
- 8) In ox, heart is placed in between _____
a) Third to sixth rib b) Second intercostals space to sixth rib
c) Third to seventh rib d) Second to seventh ribs
- 9) _____ is the largest part of brain.
a) Cerebellum b) Cerebral hemisphere
c) Medulla oblongata d) Pons
- 10) _____ is the longest nerve of all cranial nerves.
a) Glassopharyngeal nerve b) Trigeminal nerve
c) Accessory d) Vagus nerve
- Q.7 a) Define the following in short. (05)
1) Meninges 2) Lymphatics 3) Epicardium
4) Tentorium cerebri 5) Ligamentum arteriosum
- b) Answer in one sentence of the following. (05)
1) Name the auditory assicles.
2) Which is the largest organ of body.
3) What is the functional & nutritional blood supply to the liver.
4) Where do you find the milk vein.
5) State the location of cysterna chyli.

SECTION - A

- Q.1 Describe the gross anatomy of uterus of cow and compare with that of bitch. (05)
- Q.2 Write down in detail anatomical structure of rumen. (05)
- Q.3 Write down the gross anatomy of bovine kidneys and compare with that of horse. (05)
- Q.4 Describe the anatomical structure of larynx of ox and compare with that of dog. (05)
- Q.5 Write short notes on:
a) Bovine testis (05)
b) Stomach of fowl.

SECTION - B

Q.6 Choose the most appropriate answer from the choice given below. (05)

1) The reflection of pleurae from the mediastinum upon the corresponding lungs is called as _____

- (a) Costal pleurae
- (b) Pulmonary pleurae
- (c) Parietal pleurae
- (d) Mediastinal pleurae

2) Papilla salivaris in ox is present at the level of _____ cheek teeth.

- (a) Upper fifth
- (b) Upper third
- (c) Lower third
- (d) Lower fifth

3) Ovulatory fossa is present on the ovary of _____

- (a) Cow
- (b) Bitch
- (c) Mare
- (d) None of these

4) Bulbus glandis is present in penis of _____

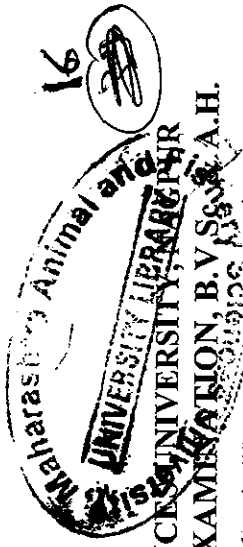
- (a) Dog
- (b) Stallion
- (c) Ox
- (d) Boar

5) Zygomatic glandis present in _____

- (a) Ox
- (b) Dog
- (c) Horse
- (d) Rabbit

Q.7 Define the following in one line (05)

- 1) Peritoneal cavity
- 2) Frenum linguae
- 3) Sigmoid flexure
- 4) Margoplicatus
- 5) Fornix vaginae



MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, VASANANDI, PUNE-411 004
COMPARTMENT ANNUAL BOARD THEORY EXAMINATION, B. V. Sc. & A. H.

Year : I
Course No. : VAN-111
Credits : 2+2 = 4
Day & Date : Monday, 27/08/2007
Academic Year : 2006-2007
Subject : Veterinary Anatomy - I
Total Marks : 50
Time : 11.00 to 13.00 hrs.

Note : 1) Solve any Three questions from Section - A.
2) Questions from Section - B are compulsory.
3) All questions carry equal marks.

Section - A

- Q. 1 Describe the pelvic bone of cow and compare it with that of bitch and mare. (10)
- Q. 2 Describe the atlas of ox and compare it with that of horse and dog. (10)
- Q. 3 a) Describe in brief the formation of synovial joint. (05)
b) Describe in brief the muscles of shoulder region of ox. (05)
- Q. 4 a) Describe in brief the formation of the cranial cavity of ox. (05)
b) Describe in brief the formation of thoracic cage of ox. (05)
- Q. 5 a) Describe in brief the muscles of lateral abdominal wall in ox. (05)
b) Describe in brief the ligamentum nuchae of ox. (05)

Section - B

- Q. 6 a) Choose the most appropriate answer from the multiple choices given below (05)
- 1) Acromion process is absent in the scapula of
a) Ox b) Horse
c) Dog d) None of the above
- 2) The ideal example of the pivot joint is
a) Atlanto-axial b) Occipito-atlantal
c) Fetlock d) None of the above
- 3) The prepubic tendon is the tendon of insertion of
a) M. rectus abdominis b) M. externus obliquus abdominis
c) M. Internus obliquus abdominis d) None of the above
- 4) The bone which presents sustanteculum tali
a) Talus b) Calcaneus
c) Central tarsal d) None of the above
- 5) The total number of lumbar vertebrae found in ox are
a) 5 b) 6
c) 7 d) None of the above

- b) Answer the following statements in one line. (05)
- 1) The name of membrane which lines the medullary cavity
- 2) The 'V' shaped, grooved bone at the ventral part of the nasal septum of ox
- 3) The ligament which prevents 'side kick' / abduction of pelvic limb in horse
- 4) The sesamoid bones which develop in the gastrocnemius muscle of dog
- 5) The foramen which communicates the coaracoid and olecranon fossae in the humerus of dog.

Q. 7 a) Define or explain in brief the following

(05)

- 1) Trochlea
- 2) Visceral bone
- 3) Flank
- 4) Glenoid cavity
- 5) Jugular furrow

b) Rewrite the statements after making necessary corrections, if required. (05)

- 1) The hardest bone in the skeleton of ox is occipital.
- 2) The unpaired skeletal muscle in the animal body is longus coli.
- 3) The second and fourth rudimentary digits of ox are called as small metacarpals.
- 4) The summit of the dorsal spine of third thoracic vertebra of ox forms the point of pin.
- 5) The single occipital condyle is present in the skull of dog.

MAHARASHTRA ANIMAL & FISHERY SCIENCES UNIVERSITY, NAGPUR
ANNUAL BOARD THEORY EXAMINATION, B. V. Sc. & A. H.

Year : I Academic Year : 2007-2008
 Course No. : VAN-121, 122 Subject : Veterinary Anatomy & Histology (II)
 Credits : 2+1 = 3, 1+1 = 2 Total Marks : 50+25 = 75
 Day & Date : Monday, 07/07/2008 Time : 10:00 to 13:00 hrs.

Note : 1) Use separate answer book for each course.

2) Solve **Any Three questions** from **Section - A** of each course.

3) **All questions** from **Section - B** of each course are compulsory.

4) Illustrate your answers with suitable diagrams.

5) All questions carry equal marks.

VAN-121

Angiology, Neurology & Aesthesiology

Marks-50

Section - A

- Q. 1 Write in detail about the interior of ventricles of heart.
- Q. 2 Name the branches of the abdominal aorta and give an account about the branches of the coeliac artery.
- Q. 3 Explain the following
 a) Meninges of brain.
 b) Sympathetic nervous systems.
- Q. 4 Name the cranial nerves and describe in detail about the trigeminal nerve.
- Q. 5 Explain the following
 a) Refractive media of eye.
 b) Middle ear.

Section - B

- Q. 6 Choose the appropriate answer from the following
- Lingual artery is the branch of
 a) Internal maxillary
 c) External carotid
 - The arterial supply to the entire hind limb is by
 a) External iliac
 c) Brachial
 - The blood supply to the horn is by
 a) Coronary artery
 c) Occipital artery
 - The wall of the arteries and veins supplied with small arteries are termed as
 a) Anastomosis
 c) Vasa vasorum
 - The first intercostals artery arises from
 a) Dorsal
 c) Vertebral artery
 - Rete mirabile cerebri supply blood to
 a) Eye
 c) Ear
 - Tibial nerve is the continuation of
 a) Saphenous nerve
 b) Peroneal nerve
- b) External maxillary
 d) Occipital artery
- b) Internal iliac
 d) Middle sacral
- b) Coronary artery
 d) Temporal artery
- b) Sinusoids
 d) Rete
- b) Subcostal
 d) Deep cervical
- b) Brain
 d) Spinal cord
- b) Peroneal nerve

- 8) Posterior haemorrhoidal nerve innervates
- a) Rectum
 - b) Urethra
 - c) External genital organs
 - d) Colon
- 9) The cerebrospinal fluid circulates in the
- a) Subdural space
 - b) Epidural space
 - c) Subarachnoid space
 - d) Perilymphatic
- 10) The autonomous nervous system is not controlling the following
- a) Cardiac muscle
 - b) Skeletal muscle
 - c) Smooth muscle
 - d) Secretory

Q. 7 A) Rewrite the statements after making necessary corrections

- 1) The number of intercostal arteries are 12 pairs in ox.
- 2) The two terminal branches of median artery are deep brachial and ulnar artery.
- 3) The Pulmonary vein is the upward continuation of the femoral vein.
- 4) Mediastinal lymph node is the commonly palpable lymph node in dogs.
- 5) Outer tough fibrous covering of the brain is pia mater.
- 6) The motor nerve of the eyeball is optic nerve.
- 7) Corpus trapezoideum is located between the pons and thalamus.
- 8) The terminal part of the spinal cord is known as cauda equina.
- 9) The oval area at the entrance of the optic nerve in the eyeball is called as chorioid.
- 10) Columella is the auditory ossicle present in the dog.

B) Give short definitions

- a) S.A. node
- b) Fossa ovalis
- c) Vena hemiazygos
- d) Cisterna chylli
- e) Arbor vitae
- f) Cerebral aqueduct
- g) Lumbo-sacral plexus
- h) Cœcygeal nerves
- i) Infra orbital pouch
- j) os opticus

VAN-122

Splanchnology

Marks-25

Section - A

- Q. 1 Write the dental formula of Ox, Horse, Dog, Pig and Fowl.
- Q. 2 Name the parts of the large intestine and explain the colon of horse.
- Q. 3 Write in detail about the Larynx of ox.
- Q. 4 Elaborate the oviduct of hen.
- Q. 5 Explain the following
- a) Penis of dog.
 - b) Left kidney of ox.

Section - B

- Q. 6 Choose the appropriate answer from the following
- 1) Soft palate is absent in
 - a) Dog
 - b) Fowl
 - c) Horse
 - d) Ox



- 2) Anterior opening of the mouth cavity is called as
- a) Rima glottis
 - b) Rima oris
 - c) Isthmus facium
 - d) Auditus
- 3) Saccus caecus is present in the stomach of
- a) Fowl
 - b) Dog
 - c) Horse
 - d) Ox
- 4) Muscular bands are present in the caecum of
- a) Dog
 - b) Horse
 - c) Ox
 - d) Fowl
- 5) Ansa sigmoidea is present in
- a) Ileum
 - b) Duodenum
 - c) Jejunum
 - d) Colon
- 6) Stenson's duct opens at
- a) Papilla salivalis
 - b) Caruncula sublingualis
 - c) Papilla incisivus
 - d) Vallate papillae
- 7) The prostate is the only accessory sex gland in
- a) Pig
 - b) Horse
 - c) Dog
 - d) Ox
- 8) Trigonum vesicae is seen in
- a) Urinary bladder
 - b) Gall bladder
 - c) Seminal vesicle
 - d) Cowpers gland
- 9) Lungs are not divided by deep fissure in
- a) Sheep
 - b) Dog
 - c) Horse
 - d) Ox
- 10) Fossa glandis is seen in the penis of
- a) Cock
 - b) Dog
 - c) Bull
 - d) Stallion

Q. 7 A) Rewrite the statements after making necessary corrections

- 1) The kidney of horse is lobulated.
- 2) Pleura lines the abdominal cavity.
- 3) Air sacs are 13 in number in fowl.
- 4) Double fold of peritoneum passing over the viscera is known as mesentery.
- 5) Larynx is the common passage for both digestive and respiratory system.

B) Give short definitions

- 1) Epiploic foramen/ Formina Winslow
- 2) Lyssa
- 3) Diverticulum duodeni
- 4) Mesosalphinx
- 5) Renal pelvis.

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MAHARASHTRA ANIMAL & FISHERY SCIENCES UNIVERSITY, NAGPUR
ANNUAL THEORY EXAMINATION, B. V. Sc. & A. H.

Year : I Academic Year : 2008-2009
Course No. : VAN-121, 122 Subject : Veterinary Anatomy & Histology - (II)
Credits : 2+1 = 3, 1+1 = 2 Total Marks : 50+25 = 75
Day & Date : Tuesday, 14/07/2009 Time : 10.00 to 13.00 hrs.

- Note :**
- 1) Use separate answer book for each course.
 - 2) Solve **Any Three questions** from **Section - A** of each course.
 - 3) **All questions** from **Section - B** of each course are compulsory.
 - 4) All questions carry equal marks.
 - 5) Draw the diagrams wherever necessary.

VAN - 121 Neurology Angiology and Aesthesiology (50 Marks)

Section 'A'

- Q.1 Describe the external morphology and topography of heart of ox and write the important features of left atrium and ventricle. 10
- Q.2 (a) Name all nerves of the brachial plexus and describe the course and supply of ulnar nerve. 05
(b) Describe the external morphology of hind brain of ox. 05
- Q.3 (a) Describe the blood supply of internal iliac artery. 05
(b) Describe the supply of Trigeminal nerve. 05
- Q.4 (a) Describe the blood supply of Ruminant stomach. 05
(b) Describe the spinal cord of ox. 05
- Q.5 Write short note on (Any Two) 10
(a) Refractive Medias of eyeball (b) Portal vein
(c) Cisterna Chyli (d) Internal ear

Section 'B'

- Q.6 Write the most appropriate answer. 10
(A) Number of cervical spinal nerves in horse. i) 7 ii) 8 iii) 14
(B) Paired branch of abdominal aorta i) Celiac ii) Renal iii) Cranial mesenteric
(C) The uterine artery originating from the abdominal aorta i) Anterior ii) Middle iii) Posterior
(D) Artery which divides terminally into cranial and caudal tibial arteries i) Brachial ii) Popliteal iii) Common carotid
(E) Artery supplying the diaphragm i) Musculophrenic ii) Gastric iii) Deep cervical
(F) Nerve supplying the quadriceps muscle. i) Obturator ii) Femoral iii) Cranial gluteal
(G) Stirrup shaped auditory ossicle i) Malleus ii) Incus iii) Stapes

- (II) This nerve is also called as pathetic nerve
 i) Occulomotor ii) Abducent iii) Trochlear
- (I) Structure of the mid brain
 i) Fourth ventricle ii) Corpora quadrigemina iii) Third ventricle
- (J) Lymph node of hind limb
 i) Popliteal ii) Atlantal iii) Mediastinal

Q.7 Answer in one word. 10

- i) Parietal branches of thoracic part of posterior aorta
- ii) The artery terminating into radial and ulnar arteries
- iii) The cranial nerve which has cranial and spinal roots
- iv) Choroid is a part of which tunic or coat or layer of the eyeball?
- v) The cranial nerve supplying taste fibres to caudal third of the tongue
- vi) The continuation of abdominal aorta after iliac quadrification in sacral region
- vii) Largest nerve of the lumbosacral plexus
- viii) The artery terminating into descending palatine and infraorbital arteries
- ix) The nerve supplying the latissimus dorsi muscle
- x) Name one principle artery contributing to the rete mirabile cerebri

VAN - 122

Splanchnology (25Marks)

Section 'A'

- Q.1 Describe the external morphology of liver of ox. 05
- Q.2 Describe the scrotum and its contents in bull. 05
- Q.3 Describe the external morphology and position of kidneys of ox and compare it with horse. 05
- Q.4 Describe the gross anatomy of lungs of ox. 05
- Q.5 (a) Write short note on oviduct of fowl. 2.5
 (b) Write dental formulae (permanent) of dog and horse. 2.5

Section 'B'

- Q.6 Write the most appropriate answer. 05
- a) Species with largest caecum
 i) Ox ii) Pig iii) Horse
- b) Species in which the ovary has ovulation fossa
 i) Cow ii) Bitch iii) Mare
- c) Syninx is found in this species
 i) Ox ii) Fowl iii) Dog
- d) Species in which prostate is the only accessory male sex gland.
 i) Dog ii) Ox iii) Pig
- e) Two mammary glands are found in this species.
 i) Mare ii) Bitch iii) Sow

- Q.7 What do you mean by? 05
- i) Lyssa
 - ii) Ansa spiralis
 - iii) Cardiac Notch
 - iv) Os - penis
 - v) Reticular groove

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MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
ANNUAL THEORY EXAMINATION, B. V. Sc. & A. H.

Year : I (Old)
Course No. : VAN-121, 122
Credits : 2+1 = 3, 1+1 = 2
Day & Date : Tuesday, 08/06/2010
Academic Year : 2009-2010
: Veterinary Anatomy & Histology - (II)
Total Marks : 50+25 = 75
Time : 09.00 to 12.00 hrs.

- Note:** 1) Use Separate Answer Book for each course.
2) Solve Any Three Questions from Section - 'A' of each course.
3) All Questions from Section - 'B' of each course are compulsory.
4) All Questions Carry Equal Marks.

VAN-121

Neurology, Angiology & Aesthesiology

50 Marks

Section - 'A'

- Q.1 Describe the Prosencephalon. (10)
Q.2 Describe the Brachial plexus and describe the course of the median nerve. (10)
Q.3 Describe the intra-thoracic branches of Axillary artery. (10)
Q.4 Describe the structure of ear. (10)
Q.5 Write the short note on following:
a) Interior of right atrium b) Thoracic duct (10)

Section - 'B'

- Q.6 Choose the most appropriate answers from the choices given: (10)
1) This is not a superficial lymph node in cattle.
a) Parotid b) Pterygoid c) Preauricular d) Preaural
2) The pineal gland is a part of
a) Diencephalon b) Mesencephalon c) Metencephalon d) Myelencephalon
3) Fourth cranial nerve is termed as
a) Oculomotor b) Trochlear c) Abducent d) Facial
4) The number of papillary muscle present in right ventricle is
a) 2 b) 3 c) 4 d) 1
5) The malar artery is the terminal branch of
a) Occipital b) External maxillary c) Internal maxillary d) superficial temporal
6) The splenic artery is the collateral branches of
a) Coeliac b) Anterior mesenteric c) Renal d) Lumbar
7) The vascular tunic of the eyeball is called as
a) Sclera b) Cornea c) Uvea d) Retina
8) The mixed cranial nerve is
a) Facial b) Optic c) Hypoglossal d) Abducent
9) The number of thoracic spinal nerves present in horse
a) 13 pairs b) 15 pairs c) 18 pairs d) 6 pairs
10) The fiber of parasympathetic system is carried by the nerve
a) Optic b) Oculomotor c) Trochlear d) Abducent

- Q.7 Answer the following with suitable word. (10)

- 1) The motor nerve supply to the tongue _____
- 2) The communication between third and fourth ventricle _____
- 3) The motor nerve supply to the diaphragm _____
- 4) The iris is pierced centrally to form an opening called as _____
- 5) The falx cerebri is the fold of _____
- 6) The vein which open in the coronary sinus _____
- 7) The compartment of heart where anterior venacava opens _____
- 8) The nerve supply to the tensor facia latae muscle is _____
- 9) The thoracolumbar division of autonomic nervous system _____

Section - 'A'

- Q.1 Describe the structure of hard palate in ox and compare with fowl. (05)
- Q.2 Describe the penis of horse. (05)
- Q.3 Describe the laryngeal cartilages of ruminant. (05)
- Q.4 Describe the visceral surface of liver of buffalo and compare with horse. (05)
- Q.5 Describe in short: (05)
- a) Stomach of fowl
 - b) Left kidney of ox

Section - 'B'

- Q.6 Choose the most appropriate answers from the choice given: (05)
- 1) The shape of the spleen in dog is
 - a) Rectangular
 - b) Human foot shape
 - c) Scythe shaped
 - d) Square
 - 2) The shape of the ovary in mare is
 - a) Oval
 - b) Bean
 - c) Round
 - d) Square
 - 3) The smooth surfaced kidneys are seen in
 - a) Buffalo
 - b) Bitch
 - c) cow
 - d) Ox
 - 4) The gall bladder is absent in
 - a) Goat
 - b) Dog
 - c) Horse
 - d) Bull
 - 5) The Stenson's duct is a duct of
 - a) Parotid salivary gland
 - b) Mandibular salivary duct
 - c) Sub-lingual gland
 - d) Pancreas

- Q.7 Answer the following in suitable word(s). (05)

- 1) The anterior opening of oral cavity
- 2) The foramen which establishes communication between general peritoneal and omental cavity
- 3) The location of pancreas of fowl
- 4) The dilatation of oesophagus at the thoracic inlet in birds
- 5) The triangular area on the superio-posterior aspect of urinary bladder where the mucous membrane is firmly attached

Year

: I (Old)

Academic Year

: 2010-2011

Course No.(s)

: VAN-121, (2+1) semesters

Subject

: Veterinary Anatomy & Histology-II

Credits

: 2+1 = 3, 1+1 = 2

Total Marks

: 50+25 = 75

Day & Date

: Tuesday, 07/06/2011

Time

: 09.00 to 12.00 hrs.

Note:

- 1) Use separate Answer Book for each course.
- 2) Solve **Any Three** questions from **Section - 'A'** of each course.
- 3) All questions from **Section - 'B'** of each course are compulsory.
- 4) Draw well-labelled diagram wherever necessary.

VAN-121 (2+1)

Gross Anatomy-II

(Marks - 50)

SECTION - 'A'

- Q. 1 Describe the right auricle and ventricle of heart of ox. (10)
- Q. 2 Enumerate the branches of brachial plexus and write the course and supply of suprascapular and radial nerve. (10)
- Q. 3 A) Draw well labelled diagram of ventral surface of brain of ox. (10)
B) Describe the lacrimal apparatus of ox.
- Q. 4 Enumerate the branches of external and internal iliac artery. Describe the course and blood supply of umbilical and deep femoral artery. (10)
- Q. 5 A) Enumerate cranial nerves with their origin and nature (05)
B) Describe the foetal circulation in ox. (05)

OR

Write short notes on **any five**.

- A) Cauda equina B) Cerebellum
C) Parasympathetic nervous system D) External jugular vein
E) Carotid trifurcation F) Cisterna chyli
G) Cornual nerve H) Cochlea

SECTION - 'B'

- Q. 6 Write True or False for the given statement (10)
- i) Lateral Ventricle is the cavity of cerebrum.
 - ii) Longitudinal fold of duramater between cerebral hemisphere is known as diaphragm sellae.
 - iii) Third and fourth ventricle of brain is communicated by cerebral aqueduct.
 - iv) Vagus is the largest nerve of the body.
 - v) Abdominal aorta continued as median sacral artery in sacrocaudal region.
 - vi) Popliteal artery is the continuation of femoral artery below the stifle joint.
 - vii) Left coronary artery is larger than right coronary artery.
 - viii) The hoof of horse present wall, sole and frog.
 - ix) Tympanic membrane is present between the external acoustic meatus and internal ear.
 - x) Lens is the chief refractory medium of the eyeball.

- xi) Pericardium is the covering of heart.
- xii) In pulmonary vein the pure blood is present.
- xiii) Lumbosacral plexus is formed by the ventral rami of first three lumbar spinal nerve.
- xiv) Pudendal nerve is formed by the union of ventral primary branches of 2nd 3rd and 4th sacral spinal nerve.
- xv) Ocular muscle are four in number.
- xvi) The choroid is the vascular coat of the eyeball.
- xvii) In each limb two chief and two accessory digits are present.
- xviii) Ganglion is the collection of neuronal cell body in the central nervous system.
- xix) Rete mirabile cerebrale is the vascular network.
- xx) Vasa vasorum is the vessels for thick blood vessels.

Q. 7 A) Choose the correct answer from the following options.

(05)

- i) The apex of heart in ox is formed by.....
 - a) Right ventricle
 - c) a and b both
 - b) Left ventricle
- ii) Corpora quadrigemina is the part of.....
 - a) Fore brain
 - c) Hind brain
 - b) Mid brain
- iii) Largest commissural fiber of cerebral hemisphere is
 - a) Fornix
 - c) Corpus callosum
 - b) Corona radiate
- iv) Lattisimus dorsi muscle is supplied by
 - a) Long thoracic nerve
 - c) Axillary nerve
 - b) Thoracodorsal nerve
- v) Innermost and nervous tunic of eyeball is
 - a) Sclera
 - c) Choroid
 - b) Retina
- vi) Hammer shaped bone of middle ear is
 - a) Stepes
 - c) Incus
 - b) Malleus
- vii) Terminal branch of superficial temporal artery is
 - a) Lacrimal and corneal
 - c) Transverse facial and palpebral artery
 - b) Cranial and caudal auricular artery
- viii) Terminal branch of median artery is
 - a) Transverse cubital and common interosseous artery
 - c) Brachial and axillary artery
 - b) Radial and ulnar artery
- ix) The veins of cranial cavity is drained by
 - a) Internal jugular vein
 - c) Superficial temporal vein
 - b) Maxillary vein
- x) Main lymphatic trunk is
 - a) Right lymphatic duct
 - b) Thoracic duct
 - h) Thoracic duct

Q. 7 B) Match the Following

(05)

Group 'A'

- 1) Basal ganglia
- 2) Thoracolumbar outflow
- 3) Brachiocephalic trunk
- 4) Olivary body
- 5) Celiac artery
- 6) Embalming
- 7) Ischiatic nerve
- 8) Mental nerve
- 9) Facial nerve
- 10) Internal ear

Group 'B'

- a) Sympathetic system
- b) Anterior aorta
- c) Corpus striatum
- d) Lower lip
- e) Medulla oblongata
- f) Largest nerve
- g) Carotid artery
- h) Rumen
- i) Petrous temporal bone
- j) Great petrosal nerve

VAN-122 (1+1)

Gross Anatomy-III

(Marks - 25)

SECTION - 'A'

- Q. 1 Describe the morphology of liver of ox. (05)
- Q. 2 Write down the morphology of left kidney of ox and compare with Dog. (05)
- Q. 3 Describe the morphology of uterus of cow and compare with bitch. (05)
- Q. 4 Write down the topography and morphology of lungs of ox. (05)
- Q. 5 Write short notes on **any two**. (05)

- a) Tongue of ox.
- b) Mammary gland of cow.
- c) Colon of horse.
- d) Testicle of ox.
- e) Reticulum.

SECTION - 'B'

Q. 6 Write True or False for the given statement. (05)

- i) Total number of permanent teeth in dog is 32.
- ii) Caecum of Horse has longitudinal bands and sacculations.
- iii) In fowl right ovary is large than left ovary.
- iv) In ox sigmoid flexure is post scrotal.
- v) Thyroid gland is present at the junction of larynx and trachea.
- vi) Mandibular gland is largest salivary gland in horse.
- vii) In ox apical bronchus is present.
- viii) Ovarian bursa is present in cow.
- ix) Corona glandis is present at the base of glans penis in dog.
- x) Adrenal gland is present at the caudal pole of kidney.

(P.T.O.)

Q.7 A) Write down the species of animal for the following character. (2.5)

Character	Species
i) Footprint shape spleen	
ii) Heart shape right kidney	
iii) Syrinx	
iv) Dental pad at upper jaw	
v) Spatula shaped tongue	

B) Match the Following

(2.5)

Group 'A'	Group 'B'
1) Fungiform papillae	a) Spiral loop
2) Parotid duct	b) Coprodeum
3) Shield shaped	c) Stenson's duct
4) Colon	d) Thyroid cartilage
5) Cloaca	e) Taste buds
