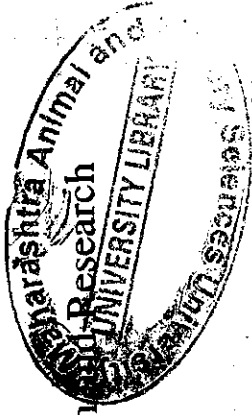


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Maharashtra Council of Agricultural Education and Research
Semester-end Examination

B.V. Sc. & A.H.



SEMESTER : I
COURSE NO. : ANT - 113
CREDITS : 1(1+0)
DAY & DATE : THURSDAY
20-1-94

ACADEMIC YEAR : 1993-94

TITLE : Anatomy - III

TOTAL MARKS : 40

TIME : 12-00 to 14-00 hrs.

- Note :** 1) Solve ANY FIVE questions from question Nos. 1 to 7.
2) Question Nos. 8, 9 and 10 are compulsory.
3) All questions carry equal marks.

- Q. 1. Discuss the salient features of the process of Oogenesis in mammals.
- Q. 2. What is blastula ? Classify it giving examples of each.
- Q. 3. Name the extraembryonic membranes of chick and give the formation and function of any two of them.
- Q. 4. Discuss the development of oesophagus, stomach (simple), small and large intestines in mammals.
- Q. 5. What is neurulation ? Describe the development of spinal cord.
- Q. 6. Discuss the development of kidney, ureter and urinary bladder in mammals.
- Q. 7. Discuss the development of bones in mammals.
- Q. 8. Define.
1) Fertilization
2) Meroblastic cleavage
3) Primary induction
4) Cleavage
5) Synapse

Q. 9. Match the pairs.

A'		B'	
1) Spermeogenesis	a) Fallopian tube		
2) Notochord	b) Bitch		
3) Retina	c) Foetal heart		
4) Heart	d) Mature spermatozoa		
5) Fertilization	e) Formation of spermatozoa from spermatid		
6) Zonary placenta	f) Vertebrae		
7) Foramen ovale	g) Muscles		
8) Haploid No. of chromosomes	h) Two primordia		
9) Testis	i) Ectoderm		
10) Somites	j) Mesoderm		
	k) Chorda mesoderm		

P.T.O.

Q. 10. Fill in the blanks.

- 1) are the number of chromosomes in cattle.
- 2) Pituitary gland is derived from and germ layers.
- 3) and are the egg envelopes in hen's egg.
- 4) Placenta is defined as an apposition of and membrane.
- 5) Hensen's node is present at anterior to



Semester :- I, REPEL, 1994-95

Course No. :- ANT-113

Credits :- 1 (1 + 0)

Date :- 5.6.95, Day :- Monday

Note :- 1. Solve any 5 question from 4.1 to 7.

2. Question Nos. 8, 9 and 10 are compulsory.

3. All question carry equal marks.

4. Illustrate your answer with diagrams wherever necessary.

.....

Q.1. : What do you mean by gametogenesis ? How does it differ in sexes ?

Q.2. : How many types of eggs occur in nature? What is the basis of their classification ?

Q.3. : How are three primary germ layers formed in chick ?

Q.4. : What is placenta ? Describe its development, structure and function.

Q.5. : Describe the development of gastrointestinal tract in mammals.


Q.6. : Describe the early development of nervous system in mammals.

Q.7. : How are mammalian kidneys developed ?

Q.8. : Arrange the sequence of the following events in serial order of development.
Heart, Fertilization, Mesoderm, Blood vessels, pericardial cavity, Gastrulation, Blastula, meiosis.

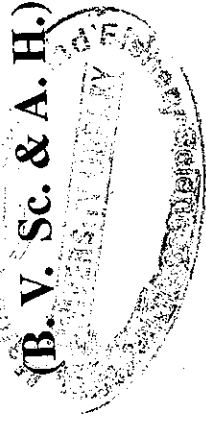
Q.9. : Name the organs structures developing from the following.
(a) Stomodeum (b) Visceral pouch (c) Somites
(d) Splanchnic mesoderm (e) Mesenchyme.

Q.10. : Define in one sentence each :-
a) Parthenogenesis
b) Morula
c) Primary induction
d) Implantation
e) Eukariotes.

7-


Maharashtra Council of Agricultural Education and Research
Semester-end Examination

(B. V. Sc. & A. H.)



ACADEMIC YEAR : 1994-95

TITLE : Anatomy - III

TOTAL MARKS : 40

SEMESTER : I
COURSE NO. : ANT - 113
CREDITS : 1 (1+0)
DAY & DATE : SATURDAY
24-12-1994

TIME : 12.00 to 14.00 hrs.

- 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 diagrams wherever necessary.

SECTION 'A'

Choose proper word from the bracket that relates with the following.

- a) Development of bone (sclerotome, myotome, dermatome)
- b) Cotyledonary placenta (mare, cow, bitch)
- c) Development of retina (ectoderm, endoderm, mesoderm)
- d) Development of muscle (somites, notocord, primitive streak)
- e) Hen's egg (Telolecithal, extremely telolecithal, isolecithal)

Make 10 meaningful terms from the following group of words.

filament, brain, opeca, lip, head, neural, body, zona, induction, mullerian, layer, cone, pore, pellucida, dorsal, crest, primary, acrosome, area, fold, polar, duct, germ, fertilization.

Q. 3. Rewrite the following sentences after making necessary corrections.

- a) Primary induction takes place during cleavage.
- b) Liver originates from mesoderm.
- c) Pituitary gland develops from proctoderm.
- d) Albumen of hen's egg is secreted in the ovary.
- e) Mammalian kidney develops from pronephros.

SECTION 'B'

Q. 4. How are ova matured ? What is the essence of maturation of ovum ?

Q. 5. What is cortical reaction ? Where does it occur ? Discuss its importance in embryonic development.

Q. 6. Describe the process of cleavage in the chick.

Q. 7. What are extraembryonic membranes ? Give brief account of extraembryonic membranes of chick.

Q. 8. Describe the development of lungs in mammals.

Q. 9. What is vitelline circulation ? How is it established in chick embryo ?

Q. 10. The skin has two distinct primordia. What are they? which parts of the skin develop from them and how?

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SEMESTER
COUNCIL OF AGRICULTURAL EDUCATION & RESEARCH
END EXAMINATION. (REPEAT)

B. V. Sc. & A. H.

SEMESTER : I ACADEMIC YEAR : 1995-96

COURSE No: ANT-113

TITLE : Anatomy - III

CREDITS : 1 (1+0)

Total Marks : 40

DAY : THURSDAY

DATE : 16.11.95

Note :- 1) Solve any 5 questions from Q.1 to 7.

- 2) Question Nos. 8, 9 and 10 are compulsory.
- 3) All questions carry equal marks.
- 4) Illustrate your answer with diagrams wherever necessary.

Q.1.: Describe the Process of spermatogenesis.

Q.2.: What are the factors responsible for mnonspemic fertilization? Describe the process in brief.

Q.3.: Discuss the influence of amount of yolk on cleavage pattern.

Q.4.: Give an account of gastrulation in the chick.

Q.5.: Enumerate and discuss the events leading to the development of eye.

Q.6.: Describe the development of gastro-intestinal tract in mammals.

Q.7.: How is heart developed in Chick?

Q.8.: Name the germ layer giving rise to

- a) gut
- b) bone
- c) liver
- d) peritoneum
- e) Placenta.

Q.9. : Define the following term in one sentence each.

- 1) Morphogenetic movements
- 2) Diastopore
- 3) amhimixis
- 4) Cortical reaction
- 5) Metamerisum.

Q.10.: Make 10 meaningful terms from the following group of words.

Embryogenetic, neuropore, Rathke's, map, code, neural, vein, iysin, grove, gut, omphalomesenteric, duct, platelets, blastula, fate, anterior, genetic, yolk, discoid, ppuch, sperm, hind.

ANNUAL BOARD EXAMINATION

BVSc & AE

Academic Year: 2000-2001

Total Marks: 50

Paper-III

Subject: Anatomy-III

Course No. VAN-21

Note: 1) Section 'A' is compulsory.

- 2) Solve any five questions from Section 'B'.
 3) Draw the suitable diagram wherever necessary

Section 'A'

Qn.1. A. Fill in the blanks. (5)

- 1) The paranchyma of spleen is divisible into _____
 and _____.
- 2) The _____ is the functional and morphological
 unit of the kidney.
- 3) The germs cells undergo special type of division known as _____
- 4) Chorion is _____ most extraembryonic membrane. (5)

- B. Where do you find the following histology structures. (5)
- 1) Islets of Langerhans 2) Kuffer's cell
 3) Leydig cells 4) Plasma cells
 5) Myoepithelial cells
- C. Name the epithelial lining of the following organs. (5)
- 1) ~~Esophagus~~ ^{Duodenum} 2) Esophagus 3) Trachea 4) Heart

5) Uterus

D. Name the germ layers giving ^{the} following organs.

- 1) Liver
 2) Heart
 3) Kidney
 4) Lung
 5) Tongue

Section 'B'

- Qn.2. Describe the process of fertilization. (6)
- Qn.3. Describe the development of gastro-intestinal tract
 in mammal. (6)
 (6)
- Qn.4. Discuss the histological structure of liver. (6)
- Qn.5. Describe the histological structure of ovary. (6)
- Qn.6. Describe the formation and functions of extraembryonic
 membranes in chick with a neat diagramme. (6)
- Qn.7. Attempt any two of the following. (6)
- 1) Placenta in cattle 2) Brunner's gland
 3) Sebaceous gland.

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Semester-II

Course No.: ANP-124

Title : ANATOMY-IV

(Angiology, Neurology &

Aesthesiology.)

Day & Date : Friday 24.12.93

Credits: 2+1 = 3

Time : 2 hours

Marks : 80

Academic year 1993-94

Time : 9.00 to 11.00 hours.

Note :- 1) Solve any five questions from Question 1 to Questions 7.

2) Questions 8,9 and 10 are compulsory .

3) All questions carry equal marks.

4) Draw the diagrams wherever necessary.

Q.1. Describe the external features and give exact anatomical position of bovine heart compare it with that of horse and dog.

Q.2 Describe the ventricular system of ox. How cerebro-spinal fluid circulates in this system.

Q.3 Describe the different parts of forebrain and give the topographical relationship and functional considerations.

Q.4 Describe course, relations and branches of common carotid artery.

Q.5 Describe briefly the fetal circulation .

Q.6 Describe in detail the formation and structure of middle and internal Ears.

Q.7 Describe origin, course and branches of Brachiocephalic trunk.

Q.8 State if each one of the following statements is TRUE or FALSE.

1. The cervical spinal nerves are seven in number.

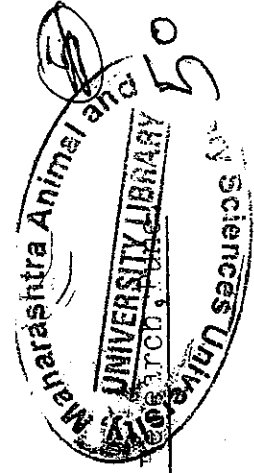
2. Ossa cordis is present in the heart of horse .

3. Falx cerebri is lodged in transverse fissure of the brain.

4. Spinal cord terminates at the level of 5th lumbar vertebra in a tapering portion called conus arteriosus.

5. Ocular muscles are eight in number .

6. The round ligament of urinary bladder is remnant structure



- 7) Pulmonary arteries carry oxygenated blood.
- 8) Mid brain consists of interpeduncular structure and corpora quadrigemina
- 9) Abducent nerve is the third cranial nerve.
- 10) The thoracic duct enters the abdominal cavity through hiatus aortae.

C.9 Fill in the blanks.

- 1) Abdominal aorta terminates below the body of _____ vertebra.
- 2) The light reflecting layer of the eye is _____.
- 3) The adrenal gland is supplied by _____ artery.
- 4) The lateral ventricles of brain communicate with third ventricle through a opening, called as _____.
- 5) _____ is the remnant structure of embryonic ductus arteriosus.
- 6) The carotid artery ascends in the neck region along with _____.
- 7) _____ is the largest nerve in the body.
- 8) The auditory ossicles are _____; _____ and _____.

C.10 State the blood supply to the following organs.

Eye, Pharynx, Lung, Small Intestine, kidney, Ovary, Diaphragm, Testis, Middle ear and Rumen.

Maharashtra Council of Agricultural Education and Research
Semester-End(Repeat) Examination of B.V.Sc.& A.H.

Semester : II
Course No: AVT-126
Credits : 2(1+1)
Academic Year : 1993-94
Title : Anatomy VI
(Digestive and respiratory system)
Time : 9.00 to 11.00 hrs.
Day & Date : Tuesday
28.12.1993
Total Marks : 40

Note : 1. Question No.1 to 3 are compulsory.
2. Solve any five questions from 4 to 10.
3. All questions carry equal marks.
4. Illustrate with diagrams wherever necessary.

Q.1 Differentiate :

- i) Duodenum of ox and horse.
- ii) Caecum of ox and horse.
- iii) Colon of ox and horse.
- iv) Right lung of ox and horse.

Q.2 Construct and complete the anatomical terms by combination of any two terms from the following :

- | | | |
|----------------|--------------|----------------|
| 1) Frenum | 2) Papillary | 3) glossus |
| 4) Genio notch | 5) laryngeal | 6) Nasi groove |
| 7) process | 8) Pillar | 9) foramen |
| 10) Anterior | 11) Septum | 12} oesophagus |
| 13} Saccule | 14} linguae | 15} Epiploic |
| 16} Reticular | 17} Cardiac | 18} |
| 19} | 20} Aditus | |

Q.3 Identify the organ from the terms mentioned below :

- 1) Circumvallate papillae
- 2) Ansa sigmoidea
- 3) Cardia
- 4) Philtrum
- 5) Rima glottidis

Q.4 Discuss the reflection of omentum in a cow.

Q.5 Discuss the anatomical differences in the interior of abomasum and the stomach of horse.

Q.6 Describe the course and relations of oesophagus in ox.

Q.7 Enumerate the gross anatomical features of reticulum in ox. Explain how are they concerned with traumatic pericarditis in ruminants.

Q.8 Describe the left lung of ox.

Q.9 How will you determine the age of a calf on the basis of dentition?

Q.10 Differentiate the tongues of ox, horse and dog.

47 (A)



MAHARASHTRA COUNCIL OF AGRICULTURAL EDUCATION AND RESEARCH
SEMESTER END EXAM.

B.V.SC. & A.H.

ACADEMIC YEAR : 1994-95

TITLE : Anatomy-IV
(Angiology, Neurology & Aesthesiology)

SEMESTER : II
COURSE : ANT-124
CREDITS : 2+1=3

DAY AND DATE : MONDAY
12.12.94

TOTAL MARKS : 80

TIME : 9.00 to 11.00

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

- Q.1. Describe the course, relations and branches of thoracic aorta.
- Q.2. Name the cranial nerves and describe second and ninth cranial nerve in brief.
- Q.3. Name the tunics of eyeball and describe the external tunic in ox.
- Q.4. Write in brief about formation, course, relations and tributaries of posterior vena cava. (Ox).
- Q.5. Define "Cysterna chyli" and describe thoracic duct in ox.
- Q.6. How brachial plexus is formed. Enlist the branches and describe any two that supply to the structure of thoracic wall.
- Q.7. Write short notes on followings (Any two) :
 - a. The sense of taste.
 - b. Internal spermatic artery.
 - c. Trabeculae Carneae.
- Q.8. State the nerve supply of the following structures :
 - i. Lung
 - iii. Cochlea
 - v. Quadriceps femoris
 - vii. Corium of horn
 - ix. Lower lip
 - ii. Superior oblique muscle of eye.
 - iv. Liver
 - vi. Levator palati
 - viii. Testis
 - x. Diaphragm
- Q.9. State if each one of the following statements is TRUE or FALSE:
 - a. The openings of coronary sinus and pulmonary veins are guarded by valves.
 - b. Posterior gluteal artery is a collateral branch of internal iliac artery.
 - c. Scleral conjunctiva is composed of transparent columnar epithelium.
 - d. III ventricle of the brain is located in the mid-brain.
 - e. Coronary veins collect the venous blood from the substance of heart except right auricle.

Q.9. (Contd.)

- h. Right ruminal artery supply blood to the posterior 1/3 of left surface of the rumen.
- i. Bicuspid valve is otherwise called as mitral valve.
- *j. Stellate ganglion is located in the abdominal cavity.

Q.10. State the location of the followings :

1. Cresta terminalis
2. Pulmonary opening
3. Substantia nigra
4. Harder's gland
5. Eustachian tuba
6. Heart in Dog
7. Malleus
8. Jugular ganglion
9. Foramina Thebesii
10. Falx cerebri.

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Semester Examination
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 Sc. & A.H. Course

Semester-II

Course No. ANT-126

Credits: 2 (1+1)

Title : Anatomy-VI

(Digestive & Respiratory system)

Total Marks :40

Day: Tuesday

Date: 13.12.1994

Time : 9:00 to 11.00 hrs.

Note:-1. Question No.1 to 3 are compulsory.

2. Solve any five questions from 4 to 10

3. All questions carry equal marks

4. Illustrate with diagrams whenever necessary.

Q.No.1 Arrange the following words properly to prepare meaningful word.

- | | |
|-----------------|--------------|
| 1) Labia | 2) Wolf |
| 3) Sublingualis | 4) Duct |
| 5) Oris | 6) Caruncula |
| 7) Whartonis | 8) Winslow's |
| 9) Tooth | 10) Foramen |

Q.No.2 Fill in the blanks.

- 1)..... papillae are present on tongue of ox.
- 2) is the dental formula of adult dog.
- 3) Gall bladder is absent in
- 4) Anal glands are present in
- 5) Nasopalatine duct opens at in ox.

Q.No.3 Identify the organs from terms mentioned below.

- 1) Circumvallate papillae (2) Ansa Sigmoidea.
- 3) Cardia 4) Philtrum 5) Rima glottidis.

Q.No.4 Describe the gross anatomical structure of liver.

Q.No.5 Describe the left lung of ox.

Q.No.6 Describe the External and internal Structure of rumen.

Q.No.7 Describe the structure, course and relations of trachea of Ox.

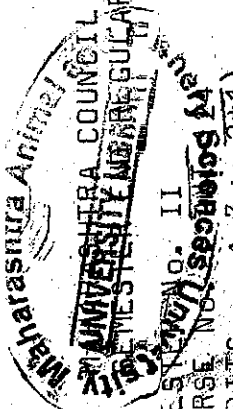
Q.No.8 Describe the structure of Tongue of Ox and Explain how it is differentiated from that of horse and dog.

Q.No.9 Describe the framework of larynx.

Q.No.10. Describe the anatomical structure of hard palate.

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UNIVERSITY COUNCIL OF AGRICULTURE
EXAMINATION OF B.V.Sc. & A. H.

SEMESTER No. II
COURSE No. 11 11
CREDITS :-3 (2+1)
ACADEMIC YEAR :- 1995-96
TITLE : ANATOMY-IV
TOTAL MARKS : 80
DAY : MONDAY , DATE : 22.4.96
TIME 9.00 to 11.00

NOTE : 1) Solve ANY FIVE questions from Q.No. 1 to 7.
2) Questions 8, 9 and 10 are compulsory.
3) All question carry equal marks.

-
- Q.1. Write an account of pulmonary circulation in Ox.
 - Q.2. Describe the right atrium of bovine heart.
 - Q.3. Enlist the branches of thoracicarteria of Ox and describe any one of them.
 - Q.4. Name the tunics of eyeball and describe the vascular tunic in brief.
 - Q.5. How does the lumbosacral plexus is formed, Enlist the nerve emerging from it and describe in brief any one of them in Ox.
 - Q.6. Write in brief about the gross anatomy of brain stem in Ox.
 - Q.7. Describe the spinal meninges in Ox.
 - Q.8. State the blood supply to the following organ (ANY FIVE)
 - i) Eye ii) Pharynx iii) Lungs iv) Small intestine
 - v) Diaphragm vi) Testis vii) Kidney viii) Liver (functional)
 - Q.9. Give the exact location of following (ANY FIVE)
 - i) Moderator bands ii) Ovary
 - iii) Volar arch iv) Aqueous humor
 - v) Prescapular lymph node vi) Lateral ventricles
 - vii) Cerebrospinal fluid viii) Stellate ganglion
 - Q.10. Make anatomical terms from the following words.
 - Ligamentum, Optic, Sella Rete, Semicircular cardiac, canals chaisma, mirabilli , arteribsum, plexus, tursica, trunk, Vago sympathetic, cerebral, groove, Peduncles, Subsinuosal-interventricular,
