Agricultural Science Past Exam Questions

Animal Physiology

Ordinary Level

2013 – Section 2 – Question 13 – Part (d)

(d) (i) Draw a diagram of the breathing system of a mammal. Label any **three** parts.

(ii) Viral pneumonia is a common illness during calf housing.

How can viral pneumonia be prevented?

(iii) Describe briefly the life cycle of lungworms.

(iv) Outline **one** method of control of lungworms in cattle.

2012 – Section 1 – Question 5

State the precise location of each of the following parts in the body of a mammal.

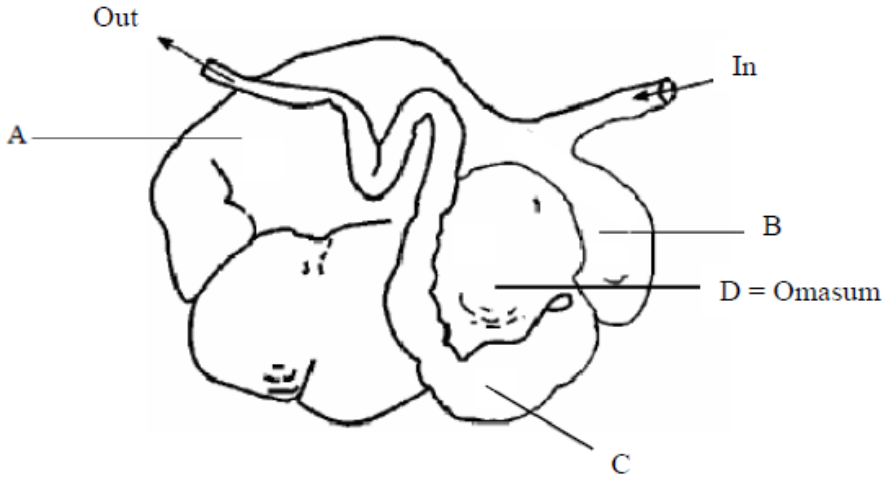
The first one has been completed as an example

Body part	**Location**
Atrium	**Heart**
(a) Trachea	
(b) Humerus	
(c) Ureter	
(d) Duodenum	
(e) Cerebellum	

(20 marks)

2012 – Section 2 – Question 12 – Part (c)

(c) The diagram below shows the ruminant stomach



(i) Explain the term ruminant.

(ii) Name the parts labelled A, B, C from the diagram. (Part D is already labelled).

(iii) Explain what happens in part A of the stomach.

(iv) Which chamber of the stomach is used first by calves and lambs?

2011 – Section 1 – Question 3

State the location of each of the following in the body of a mammal.

The first one has been completed as an example.

Body Part	**Location**
Villi	**Small intestine**
(i) Left ventricle	
(ii) Femur	
(iii) Bronchiole	
(iv) Testis	
(v) Cerebrum	

(20 marks)

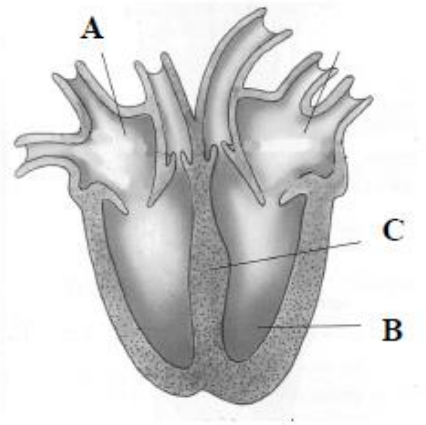
2011 – Section 2 – Question 12 – Part (a)

(a) Draw a labelled diagram of the digestive system of a **named** monogastric animal.

Describe an experiment to investigate the action of one **named** digestive enzyme.

2010 – Section 2 – Question 10

(a) The diagram below is of a sheep's heart.



(i) Name, in your answer book, the parts labelled A, B, and C.

(ii) List **three** types of blood cell.

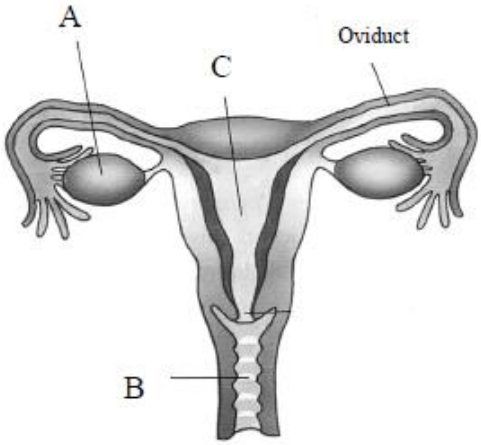
(iii) Give the function of each type of blood cell.

(iv) New-born bonhams often suffer from a blood-related illness called anaemia.

What is the cause of anaemia?

(v) Describe how anaemia in bonhams can be prevented.

(b) The diagram below shows the reproductive system of a cow.



(i) Name, in your answer book, the parts labelled A, B, and C.

(ii) Sheep farmers often use a technique called 'flushing' to improve conception rates.

What is meant by flushing?

(iii) List **three** advantages of flushing.

(iv) Cattle farmers often use A.I. to improve conception rates.

What does A.I. stand for?

(v) Give **one** advantage of A.I.

(60 marks)

2009 – Section 2 – Question 10

(a) (i) Name **two** breeds of sheep used in mountain sheep production.

(ii) Name **two** breeds of sheep used in lowland sheep production.

(iii) Describe the main practices involved in either a mountain sheep enterprise or a lowland sheep enterprise.

(b) (i) Sheep are polyoestrous. What does the term polyoestrous mean?

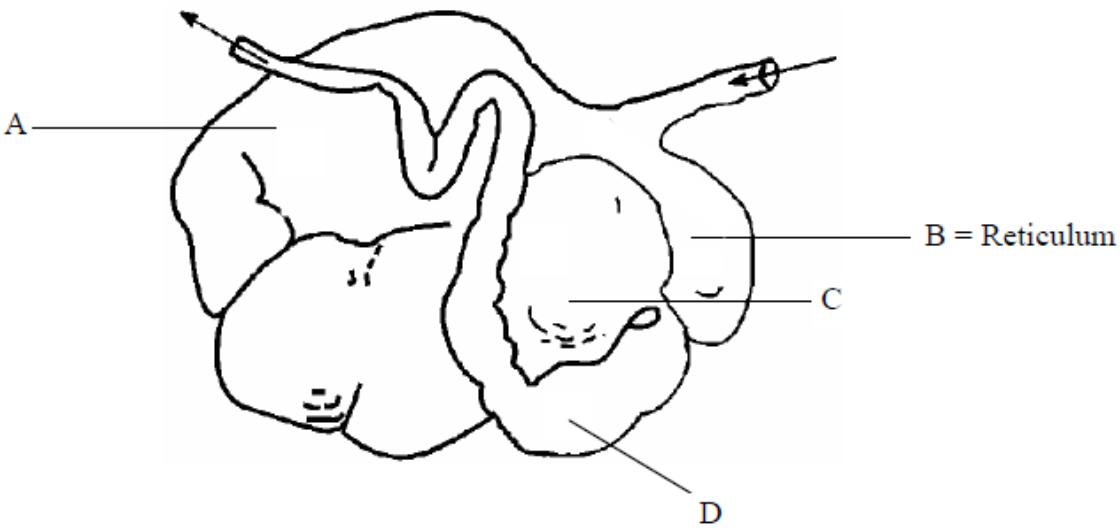
(ii) What is the length of the oestrous cycle in sheep?

(iii) Describe the key steps involved in 'breeding out of season' to produce lambs for the early spring market.

(iv) State a suitable ram-to-ewe ratio that should be used for mating when breeding out of season.

(c) Sheep are ruminant animals.

(i) The diagram below represents the ruminant stomach. Name the parts labelled A, C and D. Part B has been named for you.



(ii) Part A holds a large number of micro-organisms.

What is the main function of these micro-organisms?

(iii) What is the function of part C in the diagram?

(60 marks)

2008 – Section 2 – Question 13

(a) Digestion is the process during which food is broken down and absorbed.

(i) Name **one** enzyme that helps in digestion and name the food that it breaks down.

(ii) Bile is a liquid that helps to break down fats.

1. Where is bile stored?

2. Explain how this liquid affects fat molecules.

3. State what substances fats are broken down into.

(iii) Give **three** functions of the liver.

(iv) In what part of the digestive system does absorption of food into the blood stream take place?

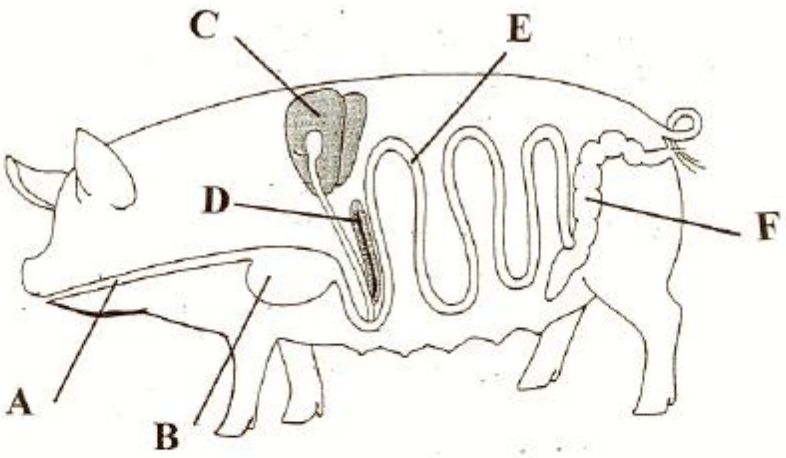
(b) The diagrams show the digestive system of a sheep and of a pig.

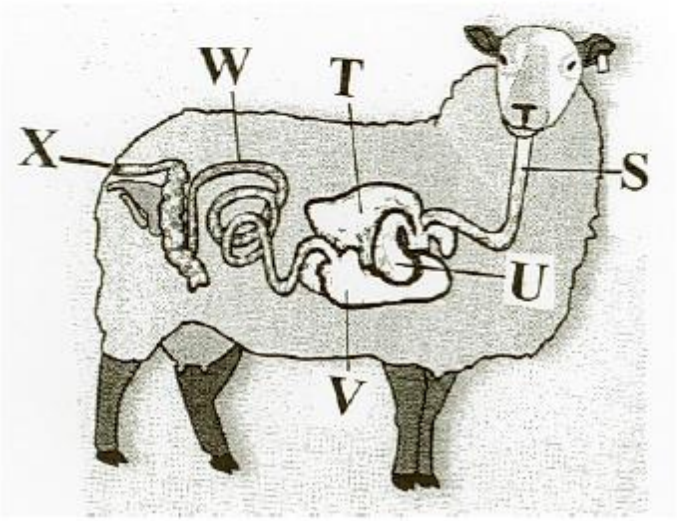
(i) Name the parts labelled A, B, C, D, E, F.

(ii) Name the parts labelled S, T, U, V, W, X.

(The reticulum has not been labelled)

(iii) State two differences between the digestive system of a pig and a sheep.





(60 marks)

2007 – Section 1 – Question 3

"Animal hormones are blood-borne messengers that regulate the actions of different parts of an organism"

(a) Name **two** reproductive hormones in animals.

Hormone 1. _____

Hormone 2. _____

(b) Give **one** function for each of them.

Hormone 1. _____

_____

Hormone 2. _____

_____

(c) Name the hormone involved in "milk let down" in animals.

_____

(d) Where in the body is the pituitary gland?

_____

(20 marks)

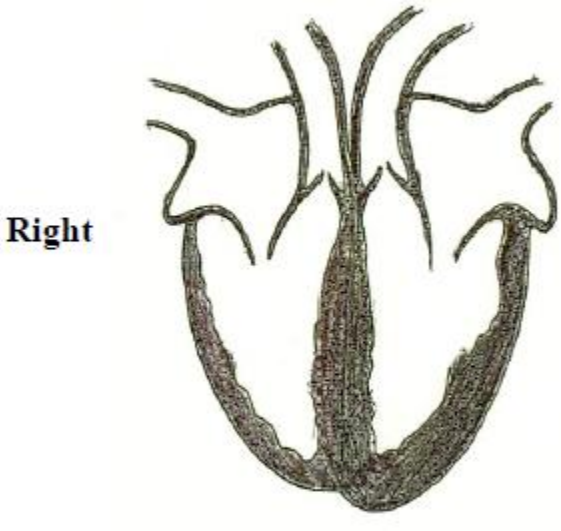
2007 – Section 2 – Question 10

(a) Sketch the diagram of the heart into your answer book and answer the following questions.

(i) Name the **four** main chambers in the heart and label them in your diagram.

(ii) Indicate with arrows the direction of blood flow in each chamber.

(iii) State **two** functions of the blood.



(b) The cow is said to be a ruminant.

(i) Explain the underlined word.

(ii) Briefly explain what happens in the rumen.

(iii) Name a part of the ruminant digestive system where food is absorbed.

(iv) Name **two** digestive enzymes.

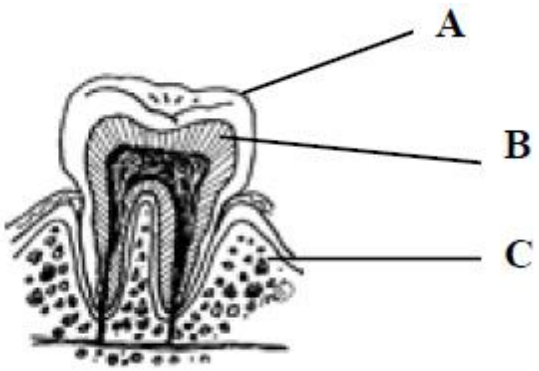
(c) The diagram shows a tooth in its socket.

(i) Name the parts labelled A, B and C.

(ii) There are different types of tooth in the mouth of a pig. Name **two** types.

(iii) Give a function for **each** of the teeth you have named.

(iv) Give the dental formula of a pig.



(60 marks)

2006 – Secction 1 – Question 6

Give **one** function of each of these parts in the animal body:

(i) Kidney

_____

(ii) Ovary

_____

(iii) Testis

_____

(iv) Lung

_____

(v) Rumen

_____

(20 marks)