



# **Agricultural Science Past Exam Questions**

## **Animal Physiology**

### **Higher Level**

**2012 – Question 1 – Part (d)**

(d) State the precise location and function of each of the following in the body of a farm animal.

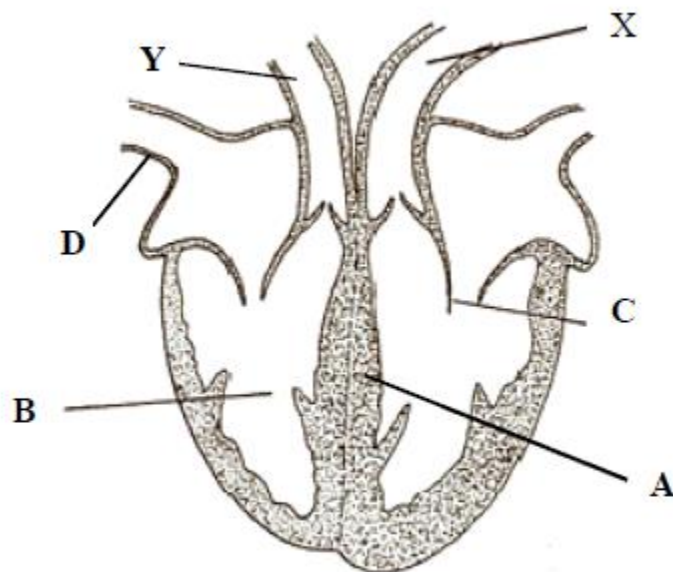
- (i) Alveolus.
- (ii) Adipose tissue.
- (iii) Abomasum.

**2011 – Question 1 – Part (c)**

(c) Explain the difference between active and passive immunity and give one example of each from agriculture.

**2011 – Question 5**

- (a)
  - (i) Name the disease caused by a lack of iron in the diet an animal.
  - (ii) Discuss the role of iron in the blood.
  - (iii) Mention **one** way of preventing iron deficiency in livestock.
- (b) This diagram shows a dissected mammalian heart.



- (i) Name the parts labelled A, B, C, D
- (ii) State the destination of the blood flowing
  1. In X
  2. In Y
- (iii) State the key characteristics of the blood
  1. In X
  2. In Y

**2010 – Question 1 – Part (b)**

(b) Draw a labelled diagram of a longitudinal section through a mammalian tooth.

**2010 – Question 1 – Part (d)**

- (d) (i) What is meant by the pH of a substance?
- (ii) State the pH values you would expect for
  1. Sour milk
  2. The contents of the rumen
  3. The contents of the abomasum

**2010 – Question 1 – Part (g)**

- (g) In the case of the pig, state
- (i) the length of gestation
  - (ii) the length of the oestrous cycle.

**2009 – Question 1 – Part (c)**

- (c) In relation to dairy cows state, in days, the length of each of the following:
- (i) Gestation
  - (ii) Lactation
  - (iii) Oestrous.

**2009 – Question 1 – Part (f)**

(f) Explain the connection between shortening day length and the onset of oestrous in sheep.

**2009 – Question 1 – Part (h)**

(h) Explain the functions of the following parts of the digestive system of poultry:

- (i) The crop
- (ii) The gizzard.

**2009 – Question 6 – Part (b) & (c)**

(b) Describe the dental formula of a ruminant.

(c) Describe the process of digestion in the stomach compartments of a ruminant animal.

**2008 – Question 1 – Part (a)**

(a) Write notes on glycogen in the body of a mammal under the following headings:

- (i) its site of production,
- (ii) its function.

**2007 – Question 1 – Part (f)**

(f) Explain the function of each of the following:

- (i) masseter muscles,
- (ii) saliva,
- (iii) reticulum.

**2007 – Question 1 - Part (g)**

(g) Write out the dental formula for an adult pig.

**2007 – Question 8 – Part (a)**

- (a) (i) Outline the role of microbes in the rumen of a farm animal.
- (ii) Describe the pathway taken by any named food nutrient within an animal's body following digestion.

**2006 – Question 1 – Part (c)**

- (c) Give two examples of the use of hormones in the control of growth characteristics of plants.

**2006 – Question 1 – Part (f)**

- (f) (i) Name the organ that produces bile in the body.
- (ii) Where is bile stored?
- (iii) State a function of bile.