Instructions

Answer one question from section 1, two questions from section 2, one question from section 3, and one more question, chosen from any of the remaining questions in section 1 and section 2 (Five questions in all).

The answers to each question must be returned in the examination script booklets provided. All examination scripts must be handed in at the end of the examination.

The marks allocated to each question are given.

Unless otherwise stated, references to Statutes in England include the equivalent alternatives for Scotland, Wales and Northern Ireland.

Unless otherwise stated, any reference to Statutes includes the EU regulations that they enforce.

Section one: Food law and policy (Answer at least one question from this section)

1. Discuss the government’s plans to introduce a Soft Drinks Industry Levy, or ‘sugar tax’, with a view to improving the health of the nation and taking into account your knowledge of food science and physiology, what other improvements could also be made by food businesses, legislators and manufacturers to assist in this? Give specific examples in your answer of how these changes would affect human health.

   20 marks

2. Legislation and alert notification is currently in place to assist in controlling the import of non-animal origin foods from third countries into the European Union. Discuss your understanding of this system and whether you think it is adequate to ensure food safety in the U.K.

   20 marks
Section two: Agriculture (Answer at least two questions from this section)

3. Detail the regulations relating to the use and labelling of additives in animal feeds.  

20 marks

4. 
   a. What are the legal definitions for the following terms in relation to fertilisers?
      i. Primary nutrient
      ii. Secondary nutrient
      iii. Micro nutrient

6 marks

   b. How do the following nutrients affect plant growth?
      i. Nitrogen
      ii. Potassium
      iii. Sulphur
      iv. Molybdenum
      v. Magnesium
      vi. Iron
      vii. Zinc

14 marks

5. 
   a. Outline the legislation which controls the contamination of animal feeds. 

10 marks

   b. Identify which mycotoxins would normally be associated with each of the components of compound feed containing maize, oats, soya and citrus pulp? Outline how you would test for these undesirables.

10 marks
6. Detail how you would analyse a formal agriculture sample for the following:
   i. Total phosphorus in a non EC fertiliser
   ii. Copper in a compound feed
   iii. Calcium in a non EC fertiliser
   iv. Sugar in a compound feed

   20 marks

Section three: Water (Answer only one question from this section)

7. Describe how a drinking water could be tested for the following:
   i. Trihalomethane (THM)
   ii. Taste and odour
   iii. Iron
   iv. Cyanide
   v. Nitrite

   20 marks

8. a. How are the following defined in current law?
   i. Bottled water
   ii. Spring water
   iii. Natural mineral water

   6 marks

   b. Detail the legislative requirements relating to their composition and labelling.

   14 marks

END OF PAPER