

THE BRITISH BEEKEEPERS' ASSOCIATION

Founded in 1874

Registered Charity No. 212025

EXAMINATION FOR PROFICIENCY IN APICULTURE

MODULE 3 HONEYBEE DISEASES, PESTS AND POISONING

8th November 2014 Time Allowed 1½ hours

Candidate Number:

Instructions to Candidates

Read the questions carefully. Answer All Sections. It is recommended not to spend more than 10 minutes on Section A, 50 minutes on Section B or 30 minutes on Section C.

Unless stated otherwise questions apply to Honeybees.

Use **BLACK** pen for text. **Black** pencil may only be used for diagrams. **DO NOT USE COLOURS.**

Examiner Use Only

Question	Sec A	B11	B12	B13	B14	B15	C16	C17	Total
Mark									
Moderated									

SECTION A (10 marks, 1 for each question)

Answer **ALL** the questions in this section. Use one or two word or short phrase answers.

Please write your answers for Section A on the question paper.

- Q1 A beekeeper finds a hole in a hive during the winter. Name the most likely culprit.
- Q2 Name one country outside the EU from where it is legal to import bees.
- Q3 On average how many Varroa daughters can a Varroa mother mite produce in one brood cycle?
- Q4 Give one cause for dysentery in honeybees.
- Q5 What are the excretory organs of the honeybee called?
- Q6 To detect an infestation of Acarine what magnification should be used?
- Q7 What disease is associated with Nosema in queen rearing enterprises?
- Q8 What size hole or slot would keep mice out of hive in winter?
- Q9 Give one difference between Braula and Varroa.
- Q10 What is the scientific name of Braula?

PLEASE HAND IN THIS SHEET AT THE END OF THE EXAMINATION

MODULE 3 HONEYBEE DISEASES, PESTS AND POISONING

8th November 2014

SECTION B (60 marks, 15 for each question)

Answer any **FOUR** questions from this section. **Write short notes for your answers.** *Marks*

- Q11 (a) List the similarities and differences between the damage caused by greater wax moth and lesser wax moth. 7
(b) Outline methods for controlling these pests. 8
- Q12 A colony fails to build up in spring compared to other colonies in the apiary and Nosema is confirmed. List the steps to be taken by the beekeeper to return this colony to good health. 15
- Q13 Suggest why:
(a) Varroosis has spread so quickly throughout the UK.? 6
(b) The population of Varroa increases continuously in a honeybee colony? 2
(c) Regular monitoring of a colony is necessary after treatment? 4
(d) Problems may be caused by the continued use of one acaricide? 3
- Q14 (a) What are the signs of European Foul Brood (EFB)? 11
(b) Under what circumstances is EFB most likely to be visible to the beekeeper? 4
- Q15 A beekeeper finds small white removable mummified larvae in the brood cells of a colony:
(a) name the disease likely to be present; 1
(b) give the specific scientific name of the causative organism; 1
(c) outline how a beekeeper can reduce the incidence of this disease; 7
(d) name three conditions that could be confused with the early stages of this disease and say how the differential diagnosis is made. 6

SECTION C (30 marks)

Answer **ONE** question from this section. Give *labelled* diagrams where applicable.

- Q16 (a) Give the scientific name and type of the causative organism of American Foul Brood (AFB) and describe the signs in a colony suffering from AFB. 11
(b) Name 2 other conditions that could be confused with AFB and explain why they are different. 4
(c) Describe the control measures that may be used by an Appointed Bee Inspector for the treatment and containment of both Foul Brood diseases in the UK. 15
- Q17 (a) Chronic Bee Paralysis Virus (CBPV) exists in two syndromes.
(i) List the signs that illustrate the presence of each of the two syndromes. 12
(ii) Give an account of how CBPV is spread within the colony. 6
(iii) State what can be done to alleviate the situation. 2
(b) There are other viruses that affect honeybees. Some of the viruses are associated with bee disease and parasites. List five viruses and give the disease/parasite associated with each virus. 10