

THE BRITISH BEEKEEPERS' ASSOCIATION

Founded in 1874

Registered Charity No. 212025

EXAMINATION FOR PROFICIENCY IN APICULTURE

MODULE 3 HONEYBEE DISEASES, PESTS AND POISONING

23rd March 2013 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.

- Q1 What is the scientific name of the lesser wax moth?
- Q2 What should be used to fumigate stored wax comb?
- Q3 Name one way to prevent mice from entering a hive.
- Q4 Name a virus that has often been associated with acarine in the past.
- Q5 Name an approved medicine used to control varroosis.
- Q6 Give the scientific name of the Small Hive Beetle.
- Q7 Name the mite species that is notifiable in Europe.
- Q8 Name 1 difference between a varroa mite and Braula.
- Q9 In what organ are amoeba found in a bee?
- Q10 What is the causative organism of Chalkbrood?

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SECTION B (60 marks, 15 for each question)

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

Marks

- Q11 Give the scientific name and describe briefly the life cycle and damage caused by the following organisms:
- (a) Acarine 10
 - (b) Amoeba 5
- Q12 (a) Define Integrated Varroa Management (IVM). 1
- (b) List, with a brief description, 7 methods that could be used as IVM to combat varroosis. 14
- Q13 (a) Fill the gaps in the table provided. 9
- (b) What precautions can be taken to reduce the possibility of BQCV? 2
- (c) How do larvae become infected with Sacbrood virus? 1
- (d) How does Sacbrood virus affect adult bees? 3
- Q14 There are a number of procedures that have to be followed when managing bees.
- (a) What is the process for reporting an incident of poisoning? 5
 - (b) What are the requirements for the importation of queens from non EU countries? 6
 - (c) Name 3 countries from outside EU from where it is permissible to import queens? 3
 - (d) Where from outside the EU can package bees be imported? 1
- Q15 (a) Name 5 **non notifiable** and **non viral** brood diseases and the conditions identifying which are diseases and which are conditions. 5
- (b) Give the scientific name of one of the causative organisms of a non notifiable, **non viral** disease as given in (a) and describe the signs and treatment of this disease. 6
- (c) Describe the signs of one of the **conditions** as given in (a) and identify how this condition arises and may be minimised. 4

SECTION C (30 marks)

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

- Q16 (a) Give the scientific names and describe the signs associated with the two species of nosema that exist in the UK and **highlight the differences**. 8
- (b) Write a detailed account of the lifecycle of nosema including how it spreads and detail the affects nosema has on an individual bee. 14
- (c) Briefly describe 2 methods to diagnose nosema, include interpreting the results. 5
- (d) What treatments are currently available for the management of Nosema? 3
- Q17 (a) Give the scientific names of AFB and EFB and for each disease itemise the characteristic signs. 13
- (b) What is the correct course of action if EFB is suspected and describe the possible treatments? 7
- (c) For each treatment describe the possible outcome for the colony and for other colonies in the same apiary and nearby. 8
- (d) Describe how EFB is spread. 2

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Q13 (a) Fill the gaps in the table given below.

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Virus	Associated 'disease'	Principle Symptom
		Queen pupa dies
DWV		Adult wings malformed
	Varroosis	Shortened adult life
	Amoeba	None
CBPV type 2		
	Sacbrood	

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