

# THE BRITISH BEEKEEPERS' ASSOCIATION

Founded in 1874

Registered Charity No. 212025

## EXAMINATION FOR PROFICIENCY IN APICULTURE MODULE 2 HONEYBEE PRODUCTS AND FORAGE

9<sup>th</sup> November 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 How do honeybees carry propolis? .....
- Q2 What is the maximum percentage of moisture allowed in *Calluna* (ling) honey? .....
- Q3 What animal produces honeydew? .....
- Q4 What is the maximum legally permissible level of HMF in blossom honey produced in the UK? .....
- Q5 Name one property of honey that makes it suitable as a wound dressing. ....
- Q6 Why should honey 'not be given to infants under 12 months old'? .....
- Q7 Name two instruments that may be used to measure the moisture content of honey. ....
- Q8 Give the two main chemical compounds produced from the fermentation of honey. ....
- Q9 What is melomel? .....
- Q10 Name an enzyme used by honey bees in the processing of nectar into honey .....

**PLEASE HAND IN THIS SHEET AT THE END OF THE EXAMINATION**

# MODULE 2 HONEYBEE PRODUCTS AND FORAGE

9<sup>th</sup> November 2013

## SECTION B (60 marks, 15 for each question)

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

Marks

- |     |     |   |    |
|-----|-----|---|----|
| Q11 | (a) | Briefly, list the points that should be considered when judging liquid honey.   | 11 |
|     | (b) | What factors should be considered when judging 'A frame for Extraction' class?  | 4  |
| Q12 | (a) | List 5 products other than honey produced or collected by bees that beekeepers can sell.  | 5  |
|     | (b) | Describe briefly how the beekeeper can collect and produce 3 of these products for sale.  | 10 |
| Q13 |     | Give the main factors involved in the processes of  |    |
|     | (a) | pollination;  | 3  |
|     | (b) | fertilisation in flowering plants.  | 12 |
| Q14 |     | Flowers offer pollinators information and rewards.  |    |
|     | (a) | List the information and rewards.   | 7  |
|     | (b) | What specific information do the flowers of clover, field geranium, forget-me-not and horse chestnut communicate to the honeybee? | 4  |
|     | (c) | Give four plants having extra floral nectaries.   | 4  |
| Q15 | (a) | List the main features of a solar wax extractor.  | 5  |
|     | (b) | How should it be used to melt wax as efficiently as possible?   | 7  |
|     | (c) | How would you treat the block of impure wax taken from the solar extractor in order to produce wax suitable for sale?             | 3  |

## SECTION C (30 marks)

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

- |      |     |  |    |
|------|-----|--|----|
| Q16  | (a) | Give a detailed account of how bees convert nectar into honey and store it.  | 16 |
|      | (b) | List the constituents in an average sample of UK honey.<br>The approximate percentage of each should be included.  | 8  |
|      | (c) | Discuss how these constituents may vary and how this would affect the resulting honey.   | 6  |
| Q17. | (a) | Describe in detail the process for producing soft set honey for sale from one bucket of solid coarse grained set honey. Other honey is available in store. | 18 |
|      | (b) | Explain what happens when honey crystallises.  | 7  |
|      | (c) | What is frosting and what can be done to discourage 'frosting' in a jar of set honey?  | 5  |