

# THE BRITISH BEEKEEPERS' ASSOCIATION

Founded in 1874

Registered Charity No. 212025

## EXAMINATION FOR PROFICIENCY IN APICULTURE

### MODULE 2 HONEYBEE PRODUCTS AND FORAGE

21<sup>st</sup> March 2015 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 on the question paper.

- Q1 Name one floral source of unpalatable honey. ....
- Q2 What is glucose oxidase? .....
- Q3 What happens if a honey of one relative density is added to a honey of another relative density and not thoroughly mixed? .....
- Q4 How does a flower from the *Myosotis arvensis* plant indicate to a honey bee that it has been pollinated? .....
- Q5 Name a component that can be used to help identify honeydew under a microscope. ....
- Q6 Honey readily absorbs water from the atmosphere. What is the term given to this reaction? .....
- Q7 What type of extractor can be used to spin ling heather honey from combs? .....
- Q8 What is melissopalynology? .....
- Q9 Give a human use for honey bee venom. ....
- Q10 What is the average water content of a UK floral honey? .....

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

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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 | (a) | Define pollination.   | 2  |
|     | (b) | Outline the process of fertilisation in plants.   | 7  |
|     | (c) | Label on the diagram provided, the following parts:<br>sepal; style; filament; anther.  | 4  |
|     | (d) | Define self-incompatibility in apples.  | 2  |
| Q12 | (a) | List the physical properties of beeswax.  | 5  |
|     | (b) | Outline how the wax from used combs and clean cappings can be recovered.  | 7  |
|     | (c) | List 3 uses of beeswax.   | 3  |
| Q13 | (a) | List <b>8 MAJOR</b> nectar producing plants of the UK. State their flowering periods.<br>(Botanical names are not required)                               | 8  |
|     | (b) | For <b>7</b> of those that have been identified, give a characteristic of the honey that might be of relevance to a beekeeper.                            | 7  |
| Q14 | (a) | What are the maximum legal moisture contents in:<br>(i) general floral honey;<br>(ii) heather ( <i>Calluna</i> ) honey;<br>(iii) bakers honey in general? | 3  |
|     | (b) | List the factors required to cause fermentation of stored honey.  | 4  |
|     | (c) | List what actions the small scale beekeeper can take to prevent fermentation.   | 4  |
|     | (d) | Describe what fermented honey looks like.   | 4  |
| Q15 | (a) | List the steps involved in preparing sections for sale after they have been removed from the beehive.   | 10 |
|     | (b) | List <b>any</b> different steps required when preparing cut-comb?   | 5  |

## SECTION C (30 marks)

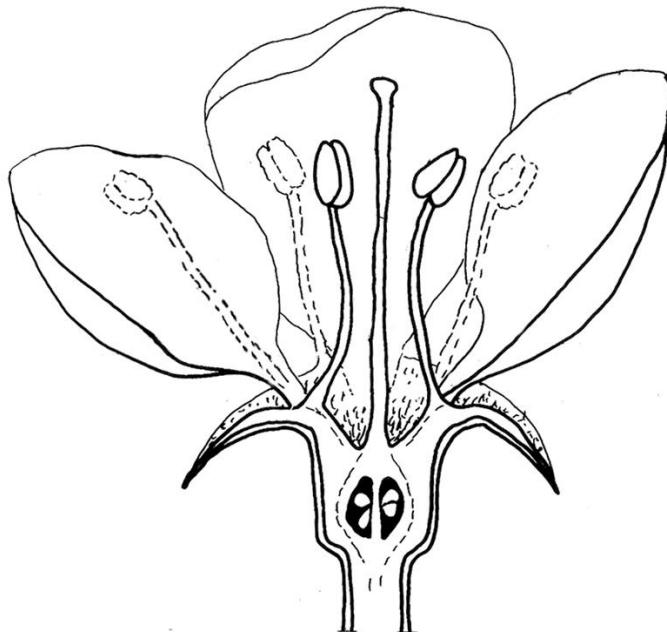
Answer **ONE** question from this section. Give *labelled* diagrams where applicable.

- Q16 Discuss the criteria that a show judge uses to evaluate the following class:  
*Six 454g Jars of Light Honey labelled as offered for sale.*  
Explain why each of these criteria also need to be considered when preparing a batch of light liquid honey to be sold via a retail outlet. 30
- Q17 (a) Discuss in detail the factors affecting the granulation of honey. 15  
(b) Distinguish between naturally granulated, soft set and seeded types of honey. 5  
(c) Describe the preparation of seeded honey. 10

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- Q11 (a) Define pollination. 2  
(b) Outline the process of fertilisation. 7  
(c) Label on the diagram below, the following parts:  
sepal; style; filament; anther. 4  
(d) Define self-incompatibility in apples. 2



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