THE BRITISH BEEKEEPERS' ASSOCIATION

Founded in 1874 Registered Charity No. 212025

EXAMINATION FOR PROFICIENCY IN APICULTURE

MODULE 2 HONEYBEE PRODUCTS AND FORAGE

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 What is hygroscopicity? ……

Q2 What is the melting point of beeswax? ……

Q3 Name one plant found in the UK, producing unpalatable honey. ……..…….

Q4 What type of foundation is used for cut-comb production? ……

Q5 How does a white clover floret show that it has been pollinated? ……..

Q6 What is the minimum diastase activity permitted in UK blossom honey? ……..

Q7 Name one plant having extra-floral nectaries and state their position on the plant. ……

Q8 Name one factors affecting the secretion of ling heather honey. ……..

Q9 State one human use for honey bee venom. ……..

Q10 At what temperature and for how long should a 454g jar of liquid honey be warmed in a water-bath to give a shelf life of a few months? ……

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*

Q 11	(a)	Define:		
		i)	pollination;	2
		ii)	fertilisation;	2
		iii)	self-pollination;	1
		iv)	cross-pollination.	2
	(b)	What are the benefits to a plant of cross-pollination?		3
	(c)	Briefly describe 5 methods by which plants may prevent self pollination.		5
Q 12	(a)	Explain what is meant by fermentation.		4
	(b)	Give reasons why some honeys may ferment.		4
	(c)	What steps should be taken, at all stages of harvesting, storage and preparation, to prevent fermentation of honey?		7
Q 13	(a)	What is honeydew and how is it produced?		6
	(b)	Give an outline account of the differences in the composition and properties of honeydew honey compared with blossom honey.		9
Q 14	(a)	List, with a brief description and any qualifications, the essential information that should appear on a label affixed to a 454g jar of liquid honey offered for retail sale in the UK.		14
	(b)	Which piece of legislation is specific to production and sale of honey?		1
Q 15	(a)	State briefly the main differences in the composition of nectar and honey.		4
	(b)	How do honey bees convert nectar into honey? Include a chemical equation in your answer.		11

SECTION C (30 marks)

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

Q 16	(a)	Draw a clearly labelled diagram of an apple flower.	10
	(b)	Describe the function of the parts of an apple flower.	12
	(c)	List eight major nectar-producing plants in the UK from which crops of honey may be expected.	8
Q 17		Write an all risks analysis for the preparation of liquid honey for sale, from removal of the crop to bottling the honey. (Details of labelling are not required).	30