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90928



Level 1 Biology, 2012

90928 Demonstrate understanding of biological ideas relating to the life cycle of flowering plants

9.30 am Thursday 15 November 2012 Credits: Four

	Achievement	Achievement with Merit	Achievement with Excellence
i	Demonstrate understanding of biological ideas relating to the life cycle of flowering plants.	Demonstrate in-depth understanding of biological ideas relating to the life cycle of flowering plants.	Demonstrate comprehensive understanding of biological ideas relating to the life cycle of flowering plants.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL the questions in this booklet.

If you need more space for any answer, use the page(s) provided at the back of this booklet and clearly number the question.

Check that this booklet has pages 2–8 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

TOTAL

You are advised to spend 60 minutes answering the questions in this booklet. ASSESSOR'S USE ONLY **QUESTION ONE: REPRODUCTION** Old man's beard reproduces using both sexual and asexual methods. Old man's beard reproduces primarily by seed. New plants can also grow from plant cuttings. For copyright reasons, this resource cannot be reproduced here. www.gw.govt.nz/assets/council-publications/Land%20Management 20040923 095116.pdf Discuss the advantages and disadvantages of sexual and asexual reproduction to old man's beard. In your answer you should: describe the differences between sexual and asexual reproduction explain the role of seeds and plant cuttings relate the advantages and disadvantages of sexual and asexual reproduction to these different reproductive structures.

QUESTION TWO: GERMINATION AND GROWTH

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geri	mination.
	te the seed has germinated, primary and secondary growth occur.
Disc	cuss the role each plays in the growth of the young plant. our answer you should:
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QUESTION THREE: PHOTOSYNTHESIS			
The diagram below shows the structure of the leaf of a typical plant.			
For copyright reasons, this resource cannot be reproduced here.			
Martin Hanson and Maria Sinclair, NCEA Level 1 Biology & Human Biology (Auckland, ESA Publications, 2008), p 244. Discuss how the structures in the leaf optimise the rate of photosynthesis. In your answer you should: describe the structures in the leaf and their functions explain how each structure you have described is suited to its function			
explain how the structures work together to make photosynthesis efficient.			

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	Extra paper if required.	
QUESTION	Write the question number(s) if applicable.	
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