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231/3

35

BIOLOGY

(Practical)

Mar. 2022 - 1³/₄ hours



Paper 3

Name	Index Number
Candidate's Signature	Date

Instructions to Candidates 2021 KCSE 2021 RC

- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of examination in the spaces provided above.
- (c) Answer all the questions in the spaces provided.
- (d) You are required to spend the first 15 minutes of the 1³/₄ hours allowed for this paper reading the whole paper carefully before commencing your work.
- (e) Additional pages must not be inserted.
- (f) This paper consists of 7 printed pages.
- (g) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- (h) Candidates should answer the questions in English.

Question	Maximum Score	Candidate's Score
1	14	
2	14	
3	12	
Total Score	40	State and the second se
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(a) You are provided with plant specimens labelled **E**, **F**, **G**, **H**, and **J**. Use the specimens to develop a dichotomous key that can be used to identify the plants from which they were obtained based on the following characteristics in the order they are given: (6 marks)

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(i) Leaf form

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- (ii) Leaf venation
- (iii) Leaf colour

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		for starch.	to light and tested (3 marks)
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		5	
	(c)	Explain one observable feature that adapts plants from which specin obtained to a dry environment.	nen \mathbf{G} and \mathbf{H} were
<u> </u>		G	(2 marks)
53			
		H	(2 marks)
0	(d)	Besides leaf characteristics, state one other observable characteristic which specimen F was obtained that enables it to be placed in its Cla	

2. You are provided with solution **M** which is a food substance.

Procedure

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(a) Using the reagents provided, test for the food substance present in substance M and complete the table below. (12 marks)

Food Test	Procedure	Observation	Conclusion	
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		·····
		·····
differ	re provided with specimen N and P which are plants of the same species ent conditions.	
differ (a)	State two observable differences between the two specimens.	(2 marks
differ (a)	ent conditions.	(2 marks
differ	State two observable differences between the two specimens.	(2 marks
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differ (a)	State two observable differences between the two specimens.	(2 mark
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differ (a)	ent conditions. State two observable differences between the two specimens.	(2 marks



Turn over

(b)	(i)	Name the phenomenon observed in specimen N.	(1 mark)
	(ii)	Explain how the knowledge on the phenomenon named in b(i) is app agriculture.	lied in (2 marks)
4			
		ne provided with space error 1	
		Sinte two observations and a second	
(c)	Acco	ount for the appearance of specimen N.	(3 marks)

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State two other environmental factors necessary for seed germination apart f	rom light. (2 marks)
	8
State two observable features on the specimens that make them be placed in Class.	the same (2 mark)
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	••••••
	State two observable features on the specimens that make them be placed in t

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