231/3

BIOLOGY

(Practical)

Mar. 2022 - 13/4 hours





| Name | Index Number |
|-----------------------|--------------|
| Candidate's Signature | Date |

Instructions to Candidates

- (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 134 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.

For Examiner's Use Only

| Question | Maximum Score | Candidate's Score |
|-------------|------------------|----------------------|
| 1 10 | 14 | |
| 2,00 | 14 | |
| 3 | 12 | |
| Total Score | 40 | |





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POUR MOSE 2021 M

Turn over

- 1. (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)
 - (i) Leaf form
 - (ii) Leaf venation
 - (iii) Leaf colour

| (b) | Account for the likely observation if fresh spec for starch. | (3 marks) |
|-----|---|--|
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| | www.prosentan substance | n util 4 a8cm n n sag - i i |
| | Honoria | |
| c) | Explain one observable feature that adapts plan obtained to a dry environment. | its from which specimen G and H were |
| | G | (2 marks) |
| | | Colter |
| | | revies |
| | H mfor fre | (2 marks) |
| | go _{sts} , co. | |
| | e de la companya de | |
| i) | Besides leaf characteristics, state one other obswhich specimen E was obtained that enables it | ervable characteristic on the plant from to be placed in its Class. (1 mark) |
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2. You are provided with solution **M** which is a food substance.

Procedure

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

| | Procedure | Observation | Conclusion |
|---------------|-------------------------|---|--------------------------|
| | | on see observable feature and in polyy days current. | lige9 1-1 ligedu O |
| E | | ee revision content | |
| | csepastpapers.com.torf | | |
| isit www.free | e one other observable. | es leuf chéractérisiées su specimen P was obtaine | |
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| (b) | State two precautions one should observe while conducting the | (2 mark |
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| You diffe | are provided with specimen N and P which are plants of the same erent conditions. | species grown under |
| differ (a) | are provided with specimen N and P which are plants of the same erent conditions. State two observable differences between the two specimens. | |
| differ (a) | State two observable differences between the two specimens. | |
| differ (a) | erent conditions. | |
| differ (a) | State two observable differences between the two specimens. | |
| differ (a) | State two observable differences between the two specimens. | |
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| differ (a) | State two observable differences between the two specimens. | |
| differ (a) | State two observable differences between the two specimens. | |

|) | (i) | Name the phenomenon observed in specimen N. | | (1 mark) |
|---|----------|--|-------------------|-----------|
| | | | | |
| | | | | |
| | (ii) | Explain how the knowledge on the phenomenon named | d in b(i) is appl | ied in |
| | 1283.128 | agriculture. | | (2 marks) |
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| | | Shapers as Soul Liver plants of the com- | tent. | may J |
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| | | isio" | dinatahil2 | (4) |
|) | Acc | ount for the appearance of specimen N. Kol | | (3 marks |
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| (d) | State two other environmental factors necessary for seed germination apart from light. |
|-----|--|
| | (2 marks) |
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| (e) | State two observable features on the specimens that make them be placed in the same Class. |
| | Class. (2 mark) |
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| | malers. |
| | State two observable features on the specimens that make them be placed in the same Class. (2 mark) (2 mark) |
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