

Biology 3
0710

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD

General Certificate of Education Examination

JUNE 2016

ADVANCED LEVEL

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| Subject Title | Biology |
| Paper No./Title | Paper 3- Practical |
| Subject Code No. | 710 |

FIRST GROUP

Three hours

Answer **ALL FOUR** questions. The allocation of marks is shown at the end of each question.

Great importance is attached to the accuracy and labelling of the drawings.

You are reminded of the importance of using a hand lens or a microscope where appropriate.

1. (a) For each of the eight specimens (A to H) provided state:
- the major group (Phylum) to which it belongs,
 - the sub-group (Class) to which it belongs,
 - the scientific or common name.
- Your answer to this question should be written in your answer book in columns as shown below:

| Specimen | (i) | (ii) | (iii) |
|----------|-----|------|-------|
| A | | | |
| B | | | |
| etc, | | | |

- (b) Examine specimen-C, then discuss any features that can improve soil fertility. (8 marks)
- (c) Make a simple dichotomous key to separate specimens B, C, D, E and F(excluding colour and size). (4 marks)
- (d) State two roles of specimens D and G in the land ecosystem. (4 marks)
- (Total = 20 marks)

2. (a) Make large labelled drawings of the lateral and ventral views of specimen D. Annotate the parts used for (12 marks)
- Locomotion
 - Reproduction
- (b) (i) Using a razor blade carefully cut specimen A longitudinally into two equal halves. Draw the two halves lying side by side and label their parts. (6 marks)
- (ii) Annotate two parts that play a role in germination. (2 marks)
- (Total = 20 marks)

3. (a) Dissect the thorax and abdomen of the bird to display its digestive system. Make a drawing of your dissection and label fully. (15 marks)
- (b) Annotate (i) two structures concerned with mechanical digestion and (ii) three structures concerned with chemical digestion. (10 marks)
- (Total = 25 marks)

Leave your dissection properly displayed for assessment after the examination.

4. You are provided with a branch of a mango leaf plant. Carefully remove five fresh leaves from the branch and immediately tie them apart on a string (thread). Weigh them together and record the weight. Tie the string containing the leaves near a window. Weigh the leaves after every 10 minutes for one hour.. Record your results in the following table:

| | X0 | X1 | X2 | X3 | X4 | X5 | X6 |
|--------------------------|----|----|----|----|----|----|----|
| Time (Minutes) | 0 | 10 | 20 | 30 | 40 | 50 | 60 |
| Initial weight (g) | | | | | | | |
| Final weight (g) | | | | | | | |
| Amount of water lost (g) | | | | | | | |

- (a) Describe your procedure and explain your results fully. (15 marks)
- (b) (i) Calculate the percentage change in mass of the leaves from the beginning to the end of the experiment. (5marks)
- (ii) Draw a graph of the amount of water loss per 10 minutes versus time. (5 marks)

(Total = 25 marks)