

NAME _____ CLASS _____ ADM. NO. _____

School.....

231/3

BIOLOGY

PAPER 3

NOV. 2020

MERU CENTRAL EXAMINATIONS

BIOLOGY

PAPER 3

INSTRUCTIONS TO CANDIDATES

- Write your **name** and **index number** in the spaces provided above.
- **Sign** and write the **date** of examination in the spaces provided above.
- You are required to spend the first 15 minutes of the 1 ¾ hours allowed for this paper reading the whole paper carefully before commencing your work.
- Answers must be written in the spaces provided in the question paper.

For Examiner's Use only:-

Question	Maximum Score	Candidate's Score
1	14	
2	13	
3	13	
TOTAL	40	

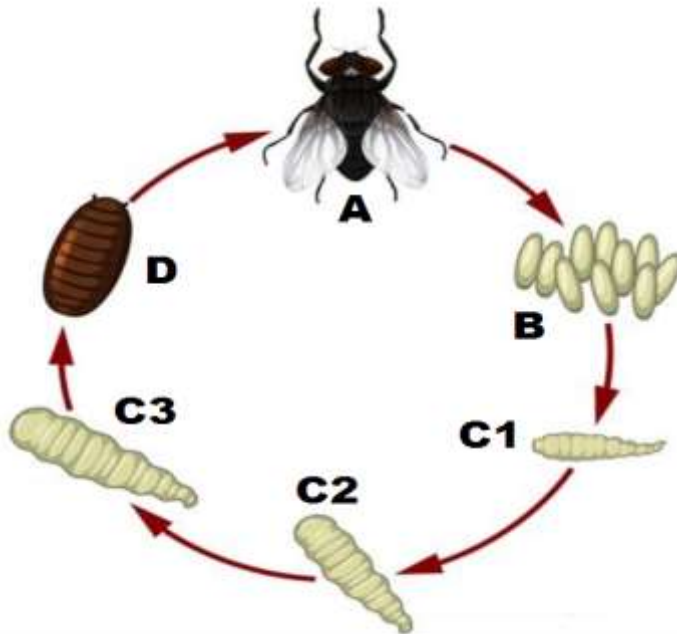
This paper consists of 7 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

Reason

.....

.....2mks

d) Below is a diagram showing the life cycle of specimen J.



i) Identify the stage labeled **D**.

.....1mk

ii) Name the hormone responsible for the change from **D** to **A**.

1mk

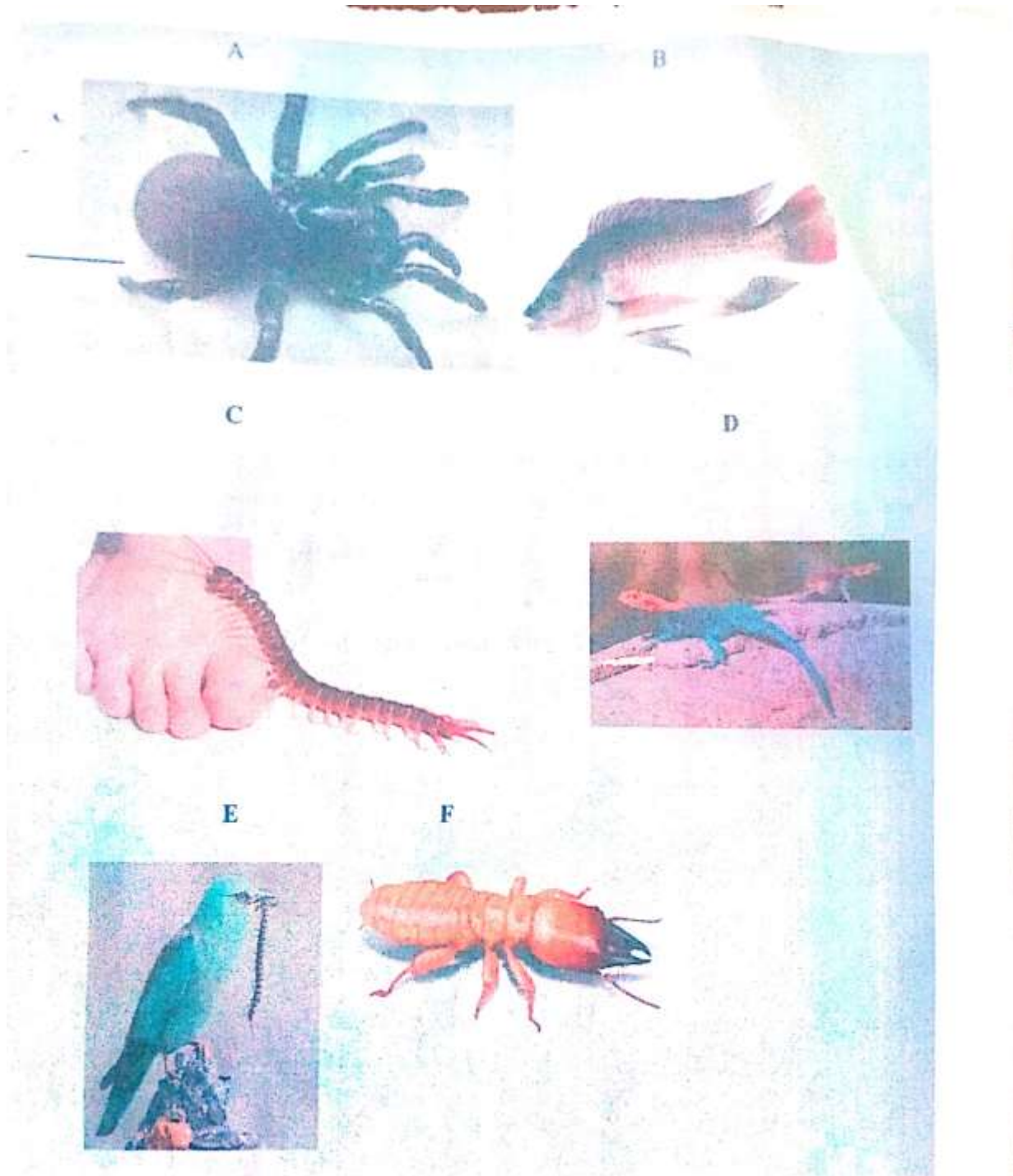
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iii) Explain the differences in the change from **C2** to **C3** and from **C3** to

D. 4mks

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Q2. Study the organisms below and answer questions in spaces provided .



a. Complete and use the key below to identify the organism. 2mks

- 1a. Organism with endoskeleton go to 2
- 1b. _____ go to 3

- 2a. Has scales on the body..... go to 4
- 2b. Has no scales on the body..... mammalian.

- 3a. Has cephalothorax Arachnida.
- 3b. Has no cephalothorax.....go to 5

- 4a. _____ pisces
- 4b. Has no fins Go to 7

- 5a. Has three pairs of legs Insects.
- 5b. Has more than three pairs of legs go to 6

- 6a. Two pairs of legs per segmentDiplopoda
- 6b. One pair of legs per segment.....chilopoda.

- 7a. Has feathers Aves
- 7b. Has no feathersgo to 8

- 8a. Has a tail.....Reptilia
- 8b. Has no tail.....Amphibia.

b). Identify the organisms above using the completed key above. 6mks

Specimen	Steps followed	Identity
A		
B		
C		
D		
E		
F		

c). Name the phylum in which specimens C, E and F belong to 1mk

d). Give three reasons for your answer in (c). 3mks

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e).Name one feature that is common in organisms **B**, **D** and **E**. 1mk

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Q3.You are provided with a specimen labeled **T** which is a fruit. Use it to answer the questions that follow.

a) Make a **transverse** section of the specimen **T**. Draw and label at least 3 parts. 6mks

b) With reasons, state the identity of fruit **T**.

Type of fruit.....1mk

Reason1mk

c) Suggest the possible agent of dispersal and give **two** reasons

Agent

..... 1mk

Reason

.....
.....

2mk

d) What is the placentation of **T**?

..... 1mk

e) Specimen **T** was green in colour before it was treated with a plant hormone.

Suggest the plant hormone.

..... 1mk

END