

CSSC  
FORM FOUR

MARKING GUIDE BIOLOGY 2A

- 1- a) i. • Nose  
• Tongue  
• Eyes  
• Skin  
• Ear.

02½ @ 00½ mark

ii). Nose - Smelling

• Tongue - Tasting

• Eyes - Seeing

• Skin - For feeling touch

• Ear - Hearing

02½ @ 00½ mark

iii) DIAGRAM OF TONGUE 00½ mark

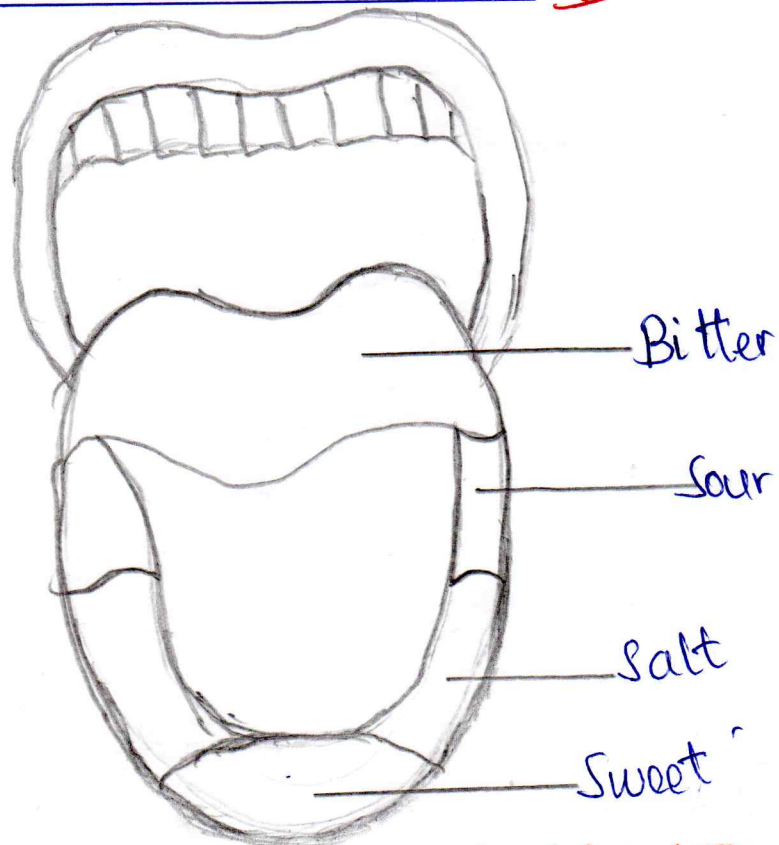


Diagram and labelling 05 marks

1. iv). Detect pain.
- Detect touch.
  - Detect pressure.
  - Detect temperature.

04 marks @ 001 mark.

b) i) Acidic. 02 mark.

ii) B - rough.

C - smooth.

02 mark @ 01 mark

iii) Feeling pain.

- Sharp object that cause pain. 02 marks @ 01 mark

iv) To observe how sense organ function.

OR  
To observe how sense organs detect the impulse. 02 marks

2. a) i)

| SPECIMEN | PHYLUM     | CLASS-      |
|----------|------------|-------------|
| L        | Arthropoda | Crustacean. |
| M        | Arthropoda | Insecta.    |
| N        | Arthropoda | Insecta.    |
| O        | Arthropoda | Diplopoda.  |

04 marks @ 01 mark

- ii) • Have three pairs of jointed walking appendages.
- Their bodies are divided into three main parts.
  - Have one or pair of wings.
  - Have highly developed mechanism of gaseous exchange through trachea.

06 marks @ 01 1/2 mark

- 2 b). They are used in biological control of pests.
- They are useful in Agriculture.
  - They are used in scientific research.
  - They are used for production of various substances.
- 03 marks @ 01k mark.

c) Specimen M have three pairs of mouth parts.

Specimen O have two pair of legs per each segment.

Specimen M Long and Muscular legs for hopping and jumping.

04k @ 01k mark

d) DIAGRAM OF SPECIMEN M.

00 1/2 mark

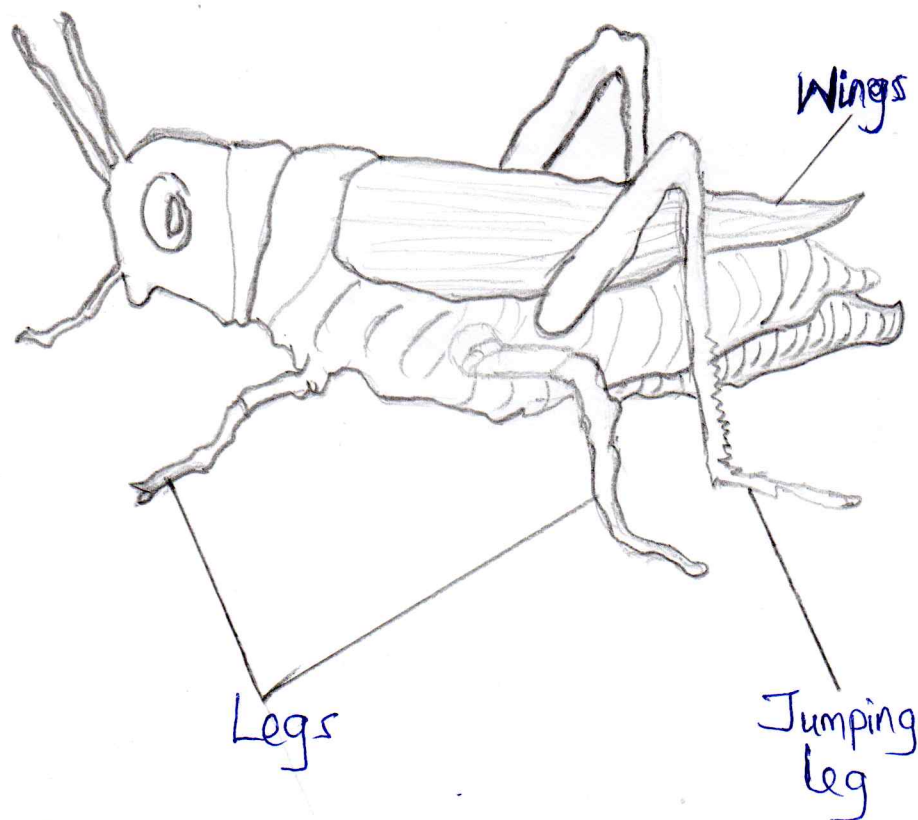


Diagram 03 marks and 02 marks labelling

2. e) Adaptations of the specimen (L).

- i) Specimen (L) is equipped with a pair of claws called pincers for grasping, eating
- ii) Have pleopods, which in males, are modified for copulation
- iii) Pincers in females, for carrying eggs.
- iv) Their body is covered with a thick chitinous exoskeleton for protection
- v) Have two pairs of antennae for sensation
- vi) Or Have gills for gaseous exchange.

03 marks  
03.00 1/2 @