

## MOMALICHE 3 2021 : BIO PP3

### Paper 3 Marking Scheme

a) (3 marks)

TEST TUBE	OBSERVATION AT START OF EXPERIMENT	OBSERVATION AT THE END OF THE EXPERIMENT
1	Blue black /black	Blue black blue black
2	Blue black /black	Retained color of iodine /brown yellow. Acc. Traces of black
3	Blue black/ black	Retained iodine color /brown/yellow

c)

#### Test tube 2

Changes to green/yellow (1 mark)

#### Test Tube 3

Colour changes to orange/brown (1 mark)

d) Control experiment (1 mark)

e) starch was broken down/hydrolyzed/converted to sugars/reducing sugar/maltose in test tubes 2 and 3.

Starch was not broken down/converted into reducing sugar in test tube/due to lack of sodium chloride and solution L (enzyme); more reducing sugar in test tube 3 than test tube 2; due to higher concentration of sodium chloride; sodium chloride accelerates hydrolysis of starch.

(4 marks)

f) enzyme/diastase (1 mark)

g) Provide optimum temperature/best temperature for enzyme activity. (1 mark)

2. (a)

Organism	Class	Reasons
M	Insecta	-Body is divided into 3 parts ; head, thorax and abdomen; -Have 3 pairs of legs

<b>N</b>	Insecta	-Body is divided into 3 parts; head, thorax and abdomen -Have 3 pairs of legs
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**b) Similarities.**

Both have:

- Body is divided into 3 parts; head, thorax and abdomen
- Have one pair of antennae;
- Have 3 pairs of legs

**Differences:**

- M has 2 pairs of wings, N has one pair of wings;
- M has a brown colour, N has black and yellow stripes;
- M has smooth body, N has hairy body;

**c) Habitat: cracks and crevices**

**Reasons:**

- Dorsal –Ventrally flattened body enabling it to fit into cracks and crevices
- Legs are ventrally placed for fast movement and are easily folded under the body enabling entry into cracks and crevices
- Smooth forewing to reduce resistance while gliding through cracks and crevices
- Brown/dark brown body colour for camouflage.

3(a) 1(a) Leaf simple.....

1(b) Leaf compound .....Y

2(a) Leaf has network venation..... go to

2(b) Leaf has parallel venation

go to 4

3(a) Leaf margin smooth/ entire..... T

3(b) Leaf margin serrated.....

4(a) Leaf purple.....

R 4(b) Leaf green.....

X Rj 1(i)1(ii), i(a) i(b), Rj two for 2 in steps, ....go to.Must be there (8 marks)

(b) Brightly coloured bracts/conspicuous bracts; to attract insect pollinators; Tubular corolla;to be reached by visiting insects/ anther and stigma enclosed inside the tube; landing platform for

insects pollinators;  
marks)

(3

(c) (i) Dicotyledonae; Rj wrong spellings

(1 mark)

(ii) Floral parts are in fives; Rj multiples of fives acc. Correct no. of named floral part.(1 mark)