

CHRISTIAN SOCIAL SERVICES COMMISSION (CSSC)
NORTHERNZONEJOINTEXAMINATIONSSYNDICATE(NZ-JES)



FORM FOUR PRE–NATIONALEXAMINATION AUGUST 2026

BIOLOGY 2A

MARKING SCHEME

1. i.

SPECIMEN	COMMON NAME
B1	Millipede
B2	Centipede
B3	Tilapia fish
B4	Moss plant

1 mark@ = 4 marks

ii.

SPECIMEN	KINGDOM	PHYLUM	CLASS
B1	Animalia	chordata	arthropoda
B2	animalia	chordata	chilopoda

1 mark@ = 6marks

iii.

B1	B2
They are slow gentle detritivores	They are venomous predator
They have two pair of legs per segment	They have one pair of legs per body segment
Cylindrical and rounded	Dorsal ventrally flattened

1 mark@ = 3 marks

iv. economic importance of B3

- used as the source of food
- used as a source of tourism
- used in biological study
- used for commercial purpose

any 4@ 1 mark@ = 4 marks

v. Adaptation of tilapia fish

- streamlined body which help to swim
- specialized fins which help to propulsion
- mucus – coated scales which protect them
- protrusible mouth for feeding **any 4 @ 1 mark@ = 4 marks**

vi. Economic importance of B4

- used to prevent soil erosion
- production of oxygen
- source of food to heterotrophs
- help to decompose dead logs
- most are common weeds
- they grow on surface and wall of building making them old and unattractive
any 4 @ 1 mark@ = 4 marks

2. a. PREPARATION OF J1

- Break an egg and add it into the beaker
- Mix it well

PREPARATION OF J2

- Peel specimen J2 by using a knife then cut it into small slices
- Put it into mortar then grind it with a pestle
- Add water then stir it gently
- Decant to obtain the solution

1 mark@ = 6 marks

FOOD TESTED	PROCEDURES	OBSERVATION	INFERENCE
STARCH	To 2cm^3 of solution P were put in a clean and dry test tube then 2 drops of Iodine solution were added drop wise in sample solution P	The mixture turned into blue black colour	Starch was present
REDUCING SUGAR	To 2cm^3 of solution P were put in a clean and dry test tube and then 2cm^3 of Benedict solution were added into sample solution P. the mixture was heated to boil until no further changes occurred.	The mixture retained the colour of Benedict solution	Reducing sugar was absent

NON REDUCING SUGAR	To 2cm^3 of sample solution P were put in a clean and dry test tube and then 1cm^3 of Dilute HCl was added and heated to boil. The mixture was allowed to cool, after cooling 1cm^3 solution were added to neutralize HCl. 2cm^3 of Benedict solution were added into the mixture then heated to boil until no further changes occurred.	The mixture retained the colour of Benedict solution	Non reducing sugar was absent
PROTEIN	To 2cm^3 of sample solution P were put in a clean and dry test tube then 2cm^3 of Sodium Hydroxide solution were added. Then 2 drops of 1% Copper (II) Sulphate solution were added in a test tube drop wise, the mixture was shaken after each drop.	The mixture turned into Purple colour	Protein was present
LIPIDS	2cm^3 of a sample solution P were put in a clean and dry test tube and then two drops of Sudan III solution were added drop wise. The mixture was shaken and allowed to settle for 5 minutes	The mixture retained the colour of reagent	Lipids was absent

12.5 marks

(c) (i) -Fish ,meat,milk

-Maize,cassava,millet **1.5 marks**

(ii)

Food substance	Enzyme	End product
Starch	Salivary amylase	glucose
Protein	Pepsin	Amino acid

0.5 mark@ = 2 marks

(iii)

Food substance	Part of alimentary canal
Starch	Mouth,Doudenum
Protein	Stomach,Doudenum

0.5 mark@ = 1 marks

(iv) To neutralize Hydrochloric acid ***1 mark***

(v) -Starch

Provide energy to the body ***0.5 mark***

-Protein

Help to repair body worn out body tissue ***0.5 mark***

Help to build the body