

CHRISTIAN SOCIAL SERVICES COMMISSION- (CSSC)
NORTHERN ZONE JOINT EXAMINATION SYNDICATE(NZJES)



FORM TWO PRE-NATIONAL EXAMINATION AUGUST 2024

BIOLOGY

MARKING SCHEME

Qn 1.

I	ii	iii	iv	v	vi	vii	viii	ix	x
A	B	B	B	C	B	C	D	B	A

01@=10

Qn 2.

LIST A	i	ii	lii	iv	v
LIST B	F	D	B	E	C

01@= 05

SECTION B (70 MARKS)

Qn 3. (a)Importance of first aid:

- (i)It saves life of the person.
- (ii)It helps to reduce pain and suffering
- (iii)It brings hope and encouragement to the patient.
- (iv)It also prevents an illness or injury from becoming worse.
- (v)It removes the fear of death.
- (vi)It helps the patient to recover from shock.

Any 3 points

01@=03

(b)(i)Pathogen is an organism that causes diseases e.g. bacteria, viruses and fungi while
Vector is an organism that transmits disease causing microorganisms' e.g. female
anopheles

Mosquito, housefly etc.

(ii)Obesity is a nutritional disorder characterized by excess body fat leading to
overweight while

anorexia nervosa is a nutritional disorder that occurs when a person intentionally refuses
to eat

enough food, leading to a severe loss of body mass.

01@=04

(c)Importance of breathing through the nose:

- (i)Through the nose air is filtered by mucus and cilia present in it.
- (ii) Through the nose air is warmed.
- (iii) Through the nose air is moistened by mucus.

01@=03

Qn 4. (a) (i) Bread mould

01

(ii) Kingdom Fungi

01

(iii) Phylum Zygomycota

01

(iv)Advantages of Kingdom Fungi.

- Used in decomposition of dead organic matter

- Some are used as a source of food eg. Mushroom

- Some are used in genetic engineering
- Some are used in making medicine
- Some are used in fermentation of alcohol

Any two points

01 @ = 02

- (b)(i) Measles (ii) Tetanus (iii) Tuberculosis (iv) Polio
(v) Whooping cough (vi) chicken pox (vii) Diphtheria

Any

four 01 @ = 04

(c) Word Equation for aerobic respiration:



01

Qn. 5 (a) Cholera

02

(b) Prevention/control measures of cholera

- (i) Wash hand with soap and clean running water after using toilet
- (ii) Boil or treat drinking water.
- (iii) Wash hands with soap and clean running water before eating.
- (iv) Wash fruits and vegetables.
- (v) Eat warm food
- (vi) Cover food
- (vii) Use toilet properly
- (viii) Pit latrines should be covered.

Any four points 01 @ = 04

(c) Differences between cow's digestive system and human's digestive system:

Cow's Digestive system	Human's digestive
(i) Has four chambered stomach	Has only one stomach
(ii) It is able to digest cellulose	Cannot digest cellulose
(iii) It chews cud	Does not chew cud
(iv) Has relatively long alimentary canal	Has relatively short alimentary canal

01 @ = 04

Qn. 6 (a) Transpiration is a process by which plants lose water through the stomata in the leaves.

02

(b) Importance of transpiration in plants:

- (i) It helps to cool the plant
- (ii) It enables the loss of excess water from the plant.
- (iii) It enables the absorption and conduction of water and mineral salts to different parts of the plant
- (iv) It helps to balance water levels within the plant.
- (v) It maintains osmosis and keeps the cells rigid.



Any four

points 1.5 @ = 06

(c) Cell \longrightarrow tissue \longrightarrow organ \longrightarrow system \longrightarrow organism

02

Qn. 7 (a)

<p>(i) Dropper</p>  <p>It is used to add liquids into experimental containers drop by drop.</p>	<p>(ii) Hand lens</p>  <p>It is mainly used to magnify specimens that are under observation.</p>
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02@=04

- (b)(i) A – Hypotonic solution
 B – Hypertonic solution
 C – Isotonic solution

00½@ = 01½

- (ii) -Cell in solution A bursted because it absorbed water by osmosis and swell but due to lack of cell wall it bursted.
- Cell in solution B shrunk because it lost water.
 - Cell in solution C did not change because the solution contained equal concentration of solute and solvent hence a cell neither absorb nor loose water.
- 01½@=04½

Qn. 8 (a)(i) Broken glasses and old newspapers

02

- (ii)The material can degrade the beauty of the environment.
- Some material can be blown by wind to other places and thus litter a wide area.
 - Water from bathroom may create breeding sites for vectors of diseases. (Any one point = 02)

(iii) Clinical waste is syringes

01

(b)

PART	NAME	FUNCTION
A	Body tube	Support the eyepiece and the rotating nosepiece
B	Rotating nosepiece	Supports the objective lens.
C	Objective lens	Magnifies the object under observation.
D	Stage clip	Holds the slide containing the specimen in place.
E	Course adjustment knob	Rises or lowers the body tube in order to bring the image into focus.

Name of parts

00½@=02½

Function of parts

00½@=02½

- Qn. 9. (a) (i) Producers are Microscopic algae 01
 (ii) Primary consumers are Mosquito larvae. 01
 (iii) Consumers of the last order are Crocodiles. 01
 (b) Small fish will be finished first.

01

This is because their number is small compared to the organisms which feed on them.

02

(c) Disadvantages of classifying organisms using few observable features:

- (i) Unrelated organisms can be grouped together
 (ii) Similar organisms may be placed in different groups.
 (iii) It does not allow the prediction of information, hence it limits more advancement in Taxonomy
 (iv) It is less accurate.

(v) It provides only limited information about each member of organisms. Any four points
 01 @ = 4

SECTION C (15 MARKS)

10. (a) The food he was advised to use was protein. 01

(b) Natural sources of protein include meat, beans, fish, milk etc Any 3 foods 01 @ = 03

(c) Roles of protein in the body:

(i) Helps to repair damaged tissues such as replacement of damaged or lost cells in wounds and skin.

(ii) Helps in building body cells

(iii) Helps in promoting growth and making protoplasm.

(iv) They are sometimes used as a source of energy especially when the body lacks carbohydrates and Lipids.

Any 3 points 01 @ = 03

(d) - The disease is Kwashiorkor. 01

- Effects due to lack of protein

(i) Less resistant to diseases and infections

(ii) Body weakness

(iii) Death if not treated.

Any 3 points 01 @ = 03

- Symptoms of kwashiorkor

(i) Extremely thin arms and legs

(ii) poor growth

(iii) Swollen abdomen due to enlargement of the liver

(iv) Reddish or yellowish thin and weak hair

(v) Anaemia

(vi) Dry skin that cracks easily

(vii) Diarrhea.

01 @ = 04

Any 4 points

