

THE UNITED REPUBLIC OF TANZANIA  
PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT  
NJOMBE REGION  
SOUTHERN ZONE FORM TWO JOINT EXAMINATION  
BIOLOGY MARKING SCHEME  
**SECTION A (15MARKS)**

1.

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

2.

**01mark @ (10marks)**

i.	ii.	iii.	iv.	v.
G	J	E	A	B

**01mark @ (10marks)****SECTION B (70 MARKS)**

3. (a)

- i. Avoiding swimming in untreated stagnant water.
- ii. Wearing protective shoes when water lodged areas.
- iii. Disposing sewage properly
- iv. Draining stagnant water
- v. Seeking immediate medical treatment.

**01mark @ (05 marks)**

(b)

- i. Taking bath at least twice per day
- ii. Wearing clean clothes all the time
- iii. Washing dirty bedding and clothes frequently.
- iv. Shaving hair growing under the armpits and pubic regions using a new razor blade or a pair of scissors.
- v. Girls are advised to wear clean and safe sanitary pads during menstruation and Change them regularly.

**(01mark @ (05 marks))**

4. (a)

- i. Biology help to gain knowledge about environment and how to improve it.
- ii. It is a foundation for specializing in careers such as teaching.
- iii. It helps to acquire research skills such as measuring and observing skill.
- iv. It enables researchers to come up with improved breeds of plants and animals.
- v. It enables scientists to come up with ways of preventing and treating diseases.
- vi. It encourages international cooperation.

**Any five points 01mark @ (05 marks)**

(b)

- i. Is the process by which food substances are broken down in living cells to release energy. **(01mark)**
- ii. – **temperature**, the rate of respiration increases with the increase in temperature and decrease with the decrease in temperature because enzymes are controlling the process so affected by temperature.

- **Age**, young organisms respire fast than older organisms, since they need more energy for growth.
- **Size**, the rate of respiration is higher in small organisms and slow in larger organisms.
- **Activity**, the rate of respiration is slow when being at rest and increases when an organism involved in vigorous activity **(Any Three points 01mark @ (03 marks)**
- iii. – Anaerobic respiration is applied in bread making.
- Anaerobic respiration is applied in dairy industries to manufacture dairy products.
- Anaerobic respiration is applied production of biogas.

**Any two points 0.5mark @ (01 marks)**

5. (a)

- i. Because the liver produces bile that contain bile salt that is necessary in emulsification of fats so as to enhance digestion by pancreatic lipase.
- ii. Because food moves down the esophagus by peristalsis.
- iii. So as to prevent back flow of blood because blood is transported at low pressure in veins.

**01mark @ (03 marks)**

(b)

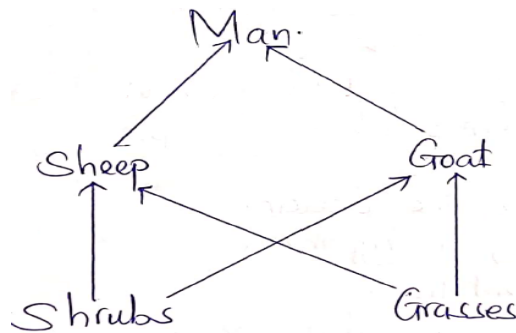
- i. Identifying the problem
- ii. Formulating a hypothesis
- iii. Experimentation
- iv. Observation and data recording.
- v. Data analysis and interpretation
- vi. Conclusion
- vii. Reporting results.

**01mark @ (07 marks)**

6. (a)

- i. Refers to the living part of the natural environment.
- ii. Refers to the non-living part of the natural environment.
- iii. Is a diagrammatic representation showing a sequence of organisms on which each organism is the food of the next one in the sequence.
- iv. Is the network of food chains interconnected at various trophic levels. **01mark @ (04 marks)**

(b)

**(06marks)**

7. (a) Is a special room or building designed for biological experiments. **(02marks)**

(b)

- i. It facilitates free movement of people in the laboratory.
- ii. It helps students to see instructions, warning signs and labels on reagent bottles.
- iii. It helps in the circulation of air and removal of fumes and gases to prevent suffocation.
- iv. Is used as solvent, for boiling, washing and cleaning laboratory apparatus. **(02Marks @)**

8. (a)

- i. Mosses
  - ii. Division bryophyta
  - iii. – they play a great role in preventing soil erosion
- They contribute in the production of oxygen gas
  - They provide manure to improve crop production.
  - They provide energy for heterotrophs.
  - They help in creating favourable environment for the development of higher plants.

**01marks****01marks****Any three points (03marks)**

(b) - is the type of classification which groups basing on features related to evolutionary relationship.

**2.5marks**

(c) Because viruses exhibit a characteristics of living things, reproduce when inside the living host and crystalize in the, absence of a living host **(2.5marks)**

9. (a)

- i. Demonstrate the occurrence of translocation in phloem tissue or demonstrate transportation of food in phloem tissue. **02marks**
- ii. The flow of water up the plant is not affected because plant does not wilt. **02marks**
- iii. Death of the tree will occur since the roots and stem are deprived of nutrients. **1.5 marks**

(b)

- i. Never bring such substance near open flames.  
-cover the containers with stoppers immediately after use since they evaporate easily.
- ii. In case it gets into contact with the skin wash it with plenty of water.
- iii. Wash with plenty of water when it comes into contact with skin or eye. **1.5 marks**

**SECTION C(15MAERKS)****10. –introduction****1.5 marks**

- **Main body**
- Frequent washing hands with soap and running water.
- Use hand sanitizer as often as possible
- Keep social distance
- Wear masks when going to public.
- Isolation of patients
- Seek medical care at near health facility
- Avoid unnecessary gatherings.
- **Conclusion**

**02marks @ (12marks)****1.5 marks**