

CATHOLIC DIOCESE OF MOSHI

URU SECONDARY SCHOOL

FORM FOUR

BIOLOGY

Exercise 4

1. Explain the meaning of the following terms
 - a) Fossils b) Struggle for existence b) Survival for the fittest c) Natural selection
2. State four reasons why plant lack specialized excretory organs.
 - b) With the aid of diagram explain types of metamorphosis
3. Reptiles are organism whose body temperature is affected by environmental temperature. Briefly explain three ways that help reptile to survive in different weather conditions
- 4a) what is evolution?
 - b) Briefly explain five theories that explain the origin of life.
5. a) Give two differences between cell membrane and cell wall.
 - b) Why is cell differentiation important to living organisms? Give a reason
6. State three actions which will take place in human body in response to each of the following
 - a) When temperature of the surrounding is low
 - b) When body temperature rises due to increase in the surrounding temperature
7. How are respiratory surfaces adapted to their role? Give four points

COMMERCE

Exercise 4

1. Explain four types of utility
2. Creation of utility has played a major role in development of our country and consumer as well. With examples explain this statement with not less than 8points
3. Explain six functions of stock control.

CIVICS

Exercise 4

1. Discuss the importance of the culture of preventive care and maintenance of individual and public property by giving six point.
2. Examine six root cause of poverty among the African nations.
3. Analyze six importance of promoting and preserving our worth culture values.
4. the most convenient transport used in Tanzania now days is motorcycle, but there some challenges that face those who use this transport. Verify the statements by giving six point.
5. Show the six institution which perpetuate Gender discrimination in Tanzania.

PHYSICS

Exercise 4

INSTRUCTIONS

Where necessary the following constant may be used.

Acceleration due to gravity, $g = 10\text{m/s}^2$ or 10N/kg

Density of water = 1000kg/m^3 or 1g/cm^3 .

Speed of light (v) = $33 \times 10^{18}\text{m/s}$.

Specific heat capacity of water = 4200J/Kg K or 4.2J/gK

Specific latent heat of fusion of ice = 336J/g .

1. (a). State the following;

(i) Archimedes principle

(ii) Law of floatation

(b) Spring balance reads 90N when a metal block is suspended from it and 78N when the block is completely immersed in water. Calculate the

(i) Up thrust on the block

(iv) Mass of block

(ii) Mass of water displaced

(v) Density of block

(iii) Volume of block

2. (a) Define the following terms

(i) Speed

(ii) Velocity

(iii) Acceleration.

(b) A car starts from rest and moves with a constant acceleration of 3m/s^2 until it reaches a velocity of 24m/s . it maintains this velocity for ten seconds (10s) and then breaks are applied to rest with a retardation of 4m/s^2 .

(i) Draw the velocity time graph for this motion.

(ii) Find the total distance travelled.

(iii). Find the average velocity for the journey.

3.(a) (i) what is a sonometer?

(ii) Briefly explain when a resonance is said to occur?

(b) What do you understand by the following terms?

(i) Reflection (ii) interference (iii) reverberation (iv) echo.

(c) A man is standing between two parallel cliffs fires a gun. If she hears an echo after 3.5sec, and another after 5.5sec. Find the distance between the two cliffs.(use speed of sound in air = 340m/s)

4. (a) (i) state ohm's law.

(ii). State the factors affecting the resistance of the wire.

(iii) Distinguish potential difference from electromotive force.

(b) Two cells each having an e m f of 1.5v and an internal resistance of 2Ω are connected;

i) In series

ii) Parallel.

(C). Find the current in each when the cells are connected to 1Ω resistance. If 1Ω resistance is substituted by an 11Ω resistance, calculate the new current in both cases.

5 (a) define the following terms

i) Pressure

ii) Force.

(b). Explain briefly why. A tractor with wide tyres cannot easily get stuck in muddy places compared to vehicle with narrow tyres?

(c) Calculate the maximum pressure exerted by a block of mass 150kg and surface dimension of 4m by 6m by 8m resting on the table.

6. (a) state the laws of electromagnetic induction

(b) List down factors that affects the magnitude of induced e m f in a moving coil galvanometer.

(c) a transformer with primary and secondary winding of 200 and 100 turns respectively is connected to 250v mains. Calculate the secondary voltage if the transformer is 75% efficient.

ENGLISH LANGUAGE

Exercise 4

1. Change the following sentences into future simple.

i. I went to Morogoro for an interview last week.

ii. Asha and Faith were working in the garden.

iii. Koffi Olomide performed at the Diamond Jubilee last month.

iv. Where did you hide your camera when the Police came?

v. Did you eat that food as you had promised?

2. Match the items in List A with the words in List B to form correct sentences. Write the letter of the most correct answer in the space provided.

LIST A	LIST B
i. My sister is very tall	A. are afraid of mice.
ii. Although she was in a lot of pain	B. insects can be annoying.
iii. Fruits and vegetables	C. are bad for your health.
iv. I think that lions	D. even if we buy a big car.
v. I am very fortunate	E. because I have learnt to speak English.
	F. she did not cry.
	G. unless you die.
	H. but I am rather short.
	I. are beautiful but frightening creatures.
	J. grow well in that area.

3. Re-arrange the following five sentences into a logical sequence to make a meaningful paragraph.

- a. My fears were however allayed when I saw the mortuary attendant.
- b. This was unlike what I had always imagined.
- c. I had always thought of a mortuary attendant as a weird person who was unfriendly, mean, and cold and many other dreadful things.
- d. I got curious and promised myself that I would talk to him later.
- e. He looked like any other person, and you would have mistaken him for a doctor at the hospital.

ICS

Exercise

1. (i) Explain the meaning of the following terms:

- a) Presentation program
- b) Custom animation
- c) Slide transition

(ii) Explain two importance of using electronic presentation.

(iii) Explain the importance of text, image and sound in the presentation.

2. a) What is multimedia?

- b) Give two characteristics of multimedia system.
- c) Describe four application area of multimedia in a society.

3. a) Define the term database query.

b) By using diagram explain three types of relationship between tables in a relational database.

KISWAHILI

Zoezi la 4

1. Andika sentensi zifuatazo katika hali ya ukanushi.

- (a) Ameshiba sana.
- (b) Watoto wengi wanaogelea.
- (c) Mvua ilinyesha kwa wingi sana.
- (d) Kijana anakula chakula kingi sana.

(e)Mimi nasoma polepole.

(2).Eleza njia iliyotumika kupata maneno yafuatayo katika lugha ya Kiswahili.

(a)Waya .

(b)Pikipiki.

(C)Harakaharaka.

(d)Mbwa mwitu.

(e)WAWATA.

(3).Jadili kukubalika kwa wahusika wawili kama kielelezo halisi cha wanajamii kutoka riwaya mbili ulizosoma(Toa hoja tatu(3) kwa kila mhusika.

GEOGRAPHY

Exercise 4

1. (i) Classify the nature of geographical data.

(ii) The Geography teacher at Macula secondary school obtained the following scores after

Marking annual examination of his students:

36, 43, 48, 68, 70, 19, 49, 30, 51, 18, 51, 58, 72, 51, 61, 43, 51, 26

2. (a) Find the median of the scores.

(b) Calculate the arithmetic mean

(c) Determine the mode of the scores.

(d) Show the significance of the arithmetic mean in geographical data.

3. (a) You have been requested by your community leaders to assist them in undertaking

Research to identify symptoms of high Lung fever caused by corona virus. Explain the first five Stages that should be followed in undertaking research.

(b) Outline the demerits of research.

4. (a) Briefly explain the function of pegs, ranging poles and arrows during chain survey.

(b) How can chain survey errors be avoided?

You can find other free resources of Geography at: <http://maktaba.tetea.org>

CHEMISTRY

Exercise 4

1. Iron is extracted from its ore in a blast furnace
 - a) Name two chief iron ores that are used for the extraction of iron
 - b) Give the main reducing agent in the blast furnace and write an equation for its formation
 - c) Using equations, describe the three main stages involved in the conversion of iron (III) oxide to iron
 - d) State two impurities found in the molten iron from the blast furnace and explain how they are removed.
 - e) Explain the main difference between pig iron and wrought iron
2. a) What is
 - i) Reactivity series of a metal?
 - ii) Chemical strength?b) Outline six physical properties of metals
- c) State the difference between physical strength and chemical strength of metals
3. Explain five main processes involved in extraction of metals

LITERATURE IN ENGLISH

Exercise 4

1. Define the following literary terms:

(i) Riddle	(iv) Novel
(ii) Proverb	(v) Idioms
(iii) Parable	
2. Analyse five events in which oral literature is used in our society.
3. How is oral literature distinct from written literature? Give six points.
4. Is oral literature safe in this era of science and technology? Give six points to support your answer.

HISTORY

Exercise 4

1(i) Mzee Ishengoma is a literate man with 90 years of age. He provided written material on Kagera war between Tanzania and Uganda in 1978, 79 to his grandson who is eighteen years old. Why this method used by Mzee Ishengoma is considered to be a reliable source of historical information.

ii) Why German colonial agent was considered as a hero in history of colonizing Tanganyika.

iii) How would you relate Zanzibar revolution and history of John Okello.

iv) Why Mwalimu J. K. Nyerere was regarded as the father of the nation in Tanzania.

v) How would you prove that neo-colonialism is a new form of colonialism in Africa.

vi) Why European nations are blamed for underdevelopment of African countries.

vii) How Black Americans are related with the African continent.

viii) Why Mwalimu J. K. Nyerere is considered an architect of liberation of southern African countries.

ix) Why the African continent was affected by World War II while the war was not fought in Africa?

x) Although colonialists did not intend to develop Africa but development was attained in Africa. How?

2a) What is nationalism?

b) What were the local factors for the rise of African nationalism and struggle for independence?

3(i) What is colonial economy?

(ii) List down colonial economic sectors?

(iii) Why did colonialists prefer settler economy in some African colonies?

(iv) How did colonial government support settler economy?

4) (i) What is bureaucracy?

(ii) List down categories of colonial coercive instruments

(iii) What were the functions of colonial administrative forces?

BOOK KEEPING

Exercise 4

1. Why do we prepare bank reconciliation statement? Explain any four reasons

2. Given the following transactions;

Opening inventory.....60,000

Sales Return.....2000

Discount to customer...3000

Purchases return....8000

Discount to saler..4000

Cash received from

Debtors.....115,000

Credit sales.....15,000

Cash paid to suppliers...80,000

Credit purchases...7,000

Closing inventory.....12,000

Furniture.....55,000

Loan to Regan.....4000

Bank overdraft.....6000

Capital.....250,000

Prepare;

a) Accounts payable control a/c

b) Accounts receivable control a/c

c) Income statement for the year ended 31st Dec 2014

d) Statement of financial position as at 31st Dec 2014

3. Outline any four advantages of consignment.
4. Draw chart showing classification of accounts
5. Outline any four types of auditors working paper.

MATHEMATICS

Exercise 4

1. Express 0.1136 in a simplified fraction.
2. Make M the subject of the following formula

$$e-mgh = \frac{1}{3} mv^2$$
3. Given that $16x \frac{x-4^x}{8} = \frac{1}{2}$, Find X.
4. Solve the following inequality and show its solution on a number line . $4-x < x + 8 < 5- 2x$
5. Given that $\text{Log}_3 = \sqrt{13}$ and $a^2 + b^2 = 25$.
 Find the value of ab.