

The United Republic Of Tanzania

President's Office

REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

RUVUMA REGION

SONGEA MUNICIPAL COUNCIL

FORM ONE MIDTERM EXAMINATION MARCH 2024

031

PHYSICS

TIME: 2 Hours

March, 2024

Instructions

1. This paper consists of sections A, B and C with a total of TEN (10) questions.
2. Answer all questions
3. All writing must be in blue or black ink except drawing which must be in pencil.
4. Calculators, cellular phones and any unauthorized materials are not allowed in the examination room.
5. Write your Examination Number at the top right corner of every page.

SECTION A (30 Marks)

Answer all questions in this section.

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1. (i) The branch of science which deals with the study of the relationship between matter and energy is:-

A.	Civics	C.	Psychology
B.	Chemistry	D.	Physics
 - (ii) Physicist is a person whose occupation specializes in the science of:-

A.	Biology	C.	Mathematics
B.	Physics	D.	Chemistry
 - (iii) Matter is _____

A.	Anything which has got mass and occupy a space.
B.	Anything which contains mass and volume
C.	Scientific study of energy.
D.	A science which deals with the study of nature and physical properties.
 - (iv) The ability or capacity of doing work is known as:

A.	Mass	C.	Pressure.
B.	Matter	D.	Energy.

- (v) The following is the fundamental subjects which other subjects use its application.
- | | |
|--------------|-----------------|
| A. Physics | C. Biology |
| B. Chemistry | D. Mathematics. |
- (vi) Measurement is defined as;
- | | |
|----------------------|-------------------------|
| A. Assigning numbers | C. Precise description |
| B. Assigning values | D. Making observations. |
- (vii) Which is not a basic quantity?
- | | |
|---------|-----------|
| A. Mass | C. Length |
| B. Time | D. Second |
- (viii) Advantage of metric system is that:
- | |
|---|
| A. It is universally accepted |
| B. It is decimal based system |
| C. One can convert from one unit to another |
| D. Units of measurement are small. |
- (ix) Why Physics, Chemistry and Biology are natural science subjects?
- | |
|---|
| A. They need practical and theory work for learning |
| B. They need only theory for learning |
| C. They need practical work only |
| D. They need only observation. |
- (x) Which of the following is a safety precaution in the Physics laboratory?
- | |
|--|
| A. Doing experiment in the laboratory |
| B. Handling of apparatus in the laboratory |
| C. Use equipment with care in the laboratory |
| D. Do anything in the laboratory |
- (xi) Which instrument will you use to measure accurately the inside diameter of a bottle neck?
- | | |
|---------------------------|----------------------|
| A. Tape measure | C. Meter ruler. |
| B. Micrometer screw gauge | D. Vernier Calipers. |
- (xii) Which of the following statement is correct about mass?
- | | |
|-------------------------------------|-------------------------|
| A. It is measured by beam balance | C. It varies with place |
| B. It is measured by spring balance | D. It can be zero |
- (xiii) A hydrometer is an instrument used to measure
- | | |
|---------------------------|--------------------------|
| A. The volume of liquids | C. The density of solids |
| B. The density of liquids | D. The volume of solids. |
- (xiv) SI – Unit of length is
- | | |
|---------------|----------------|
| A. Centimeter | C. Meter |
| B. Kilometer | D. Millimeter. |
- (xv) Diameter of a wire can be measured using
- | | |
|---------------------------|-----------------|
| A. Venier caliper | C. Meter Ruler |
| B. Micrometer screw gauge | D. Beam balance |
- (xvi) Which is not a derived quantity?
- | | |
|-----------|-------------|
| A. Volume | C. Area |
| B. Speed | D. Distance |
- (xvii) Accurate volume of a liquid can be measure by using
- | | |
|---------------------|--------------|
| A. Volumetric flask | C. Burette |
| B. Pipette | D. Cylinder. |

- (xvii) The following are the steps of scientific investigation except;
- A. Identification of problem,
 - B. Preparing research proposal,
 - C. Formation of hypothesis,
 - D. Experimentation
- (xviii) Laboratory rules are useful in
- A. Making student enjoy science subject,
 - B. Making student conduct experiments freely,
 - C. Ensuring safety while in the laboratory,
 - D. Ensuring good communication with other students and the teachers
- (xix) Which is a characteristic of a gas?
- A. Conducts electricity
 - B. Does not have definite shape or volume
 - C. Has definite volume but not shape
 - D. Has both fixed volume and shape.
- (xx) The SI –Unit of force is
- A. Newton
 - B. Gravity
 - C. Meter per second
 - D. Meter squared.

2. Match each item in list A with a correct response in list B by writing its letter number of the corresponding item in the table provided

List A	List B
i. Temperature of water ii. Volume of liquid iii. Length of classroom iv. Relative density of milk v. Mass of a book vi. Diameter of a test tube	A. Thermometer B. Metre rule C. Simple pendulum D. Ticker tape timer E. Vernier caliper F. Relative density bottle G. Electronic balance H. Barometer I. Micrometer screw gauge J. Pair of scissor K. Beam balance

(i)	(ii)	(iii)	(iv)	(v)	(vi)

SECTION B (54 Marks)

Answer all questions

3. Complete each the following statement by writing the correct answer in the space provided.

- (i) _____ is a scientific study of matter in relation to energy.
- (ii) Energy is ability or capacity of doing _____
- (iii) _____ is anything which has got mass and occupies a space.

(iv) There are _____ states of matter.

(v) A person who study Physics is called _____

4. Define the following terms.

(i) Physics

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(ii) Physicist

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(iii) Science

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(iv) Technology

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5. List any three importance of studying Physics.

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6. List any five areas where Physics is applied in real life.

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7. Mention five subjects which relates with Physics.

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8. (a) What are the uses of the following devices?

(i) Thermometer.....

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(ii) Ruler

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(iii) Relative density bottle

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(iv) Triple Beam balance

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(b) Why a laboratory door is opened outward?

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SECTION C (15 MARKS)
(Answer all questions from this section)

9. Draw symbols used to represent the following warning

a) Flammable

b) Irritant

c) Oxidant

d) Radioactive

e) Keep away from water

10. From the fig below, determine the diameter of the object.

