

**REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
IRINGA UMMUSALAMA SECONDARY SCHOOL
FORM ONE MID-TERM EXAMINATION
PHYSICS**

TIME:2:00 HOURS

MARCH 2026.

INSTRUCTION.

1. Answer all questions.
2. This paper consist of section A, B and C with total ten (10) questions.
3. All writing must be written in Blue or Black ink except drawings which must be in pencil.
4. All communication devices are not allowed in the examination room.
5. Non-programmable calculators and mathematical table may be used.
6. Write your **Administration number** on every page of answer sheet.

SECTION A (15 MARKS)

1. Choose the correct answer from the among the given alternatives and write its letter beside the item number in the answer
 - (i) How does studying physics contribute to our understanding of the natural world and the world and the universe?
 - A. Physics is not related to the study of the natural world and the universe
 - B. Physics helps us to understand the behavior of matter and energy , from the subatomic particles to celestial bodies
 - C. Physics only deals with artificial and human made systems.
 - D. Physics is not essential for understanding the natural world and the universe
 - (ii) Physics is the fundamental branch of science, because the knowledge obtained in physics in studying physics is strongly connected to the other branches of science. Which of the following statements describes how physics is connected to the other disciplines like

chemistry and biology?

A. Physics studies the properties of matter and energy , which are fundamental to all sciences

B. Physics focuses solely on celestial bodies and space exploration

C. Physics deals with the human mind and cognitive processes

D. Physics has many application in medical fields

(iii) Physics is the study of matter, energy and the interaction existing between them

.What is the

significance of the interaction of matter and energy in physics?

A. It helps to understand the human body and its function

B. It allows us to explore different planets and their atmosphere

C. It helps to explain the behavior of objects and phenomena in the universe

D. It is not relevant to the study of the physics.

(iv) People who study physics are known as

A. Physically

B. Physician

C. Physicists

D. Scientist

(v) Physics is

A. A quantitative science

B. An experimental science

C. The most basic science

D. All above

(vi) One of the following does not show the application of physics .Which one is it?

A. Camera

B. Wood

C. Knife

D. Machine

(vii) The branch of science in which the relationship between matter and energy is studied

A. Physics

B. Chemistry

B. Chemistry

C. Biology

D. Agricultural science

(viii) When a large body of experimental evidence supports the hypothesis or does not support

the hypothesis, what may the hypothesis eventually be considered?

A. An observation

C. A conclusion

B. An insight

D. A law

(ix) To measure the length using a meter rule, wrong position of the eye leads to:

(A) parallax error.

(B) eye error.

(C) zero error.

(D) meter error.

(x) Which of the following instruments is most suitable for measuring the internal diameter of 100 ml beaker?

(a) Meter rule.

(b) Vernier calliper:

(c) Measuring tape.

(d) External calliper.

i	ii	iii	iv	v	vi	vii	vii	ix	x

2. Match the items from list A which correspond with those from list B and write its latter on the answer sheet provided.

LIST A	LIST B
i. Physics	A. The quantity that has magnitude only
ii. Measurement	B. A standard used to measure physical quantities
iii. Unit	C. The study of matter,energy and their interaction.
iv. Scalar quantity	D. The process of finding the size or amount of some thing.
v. Velocity quantity	E. The quantity that has magnitude and direction.

LIST A	i	ii	iii	iv	v
LIST B					

SECTION B (70 MARKS).

3. (a) Outline any four career opportunities to the people who are learning physics (4 marks)

(i)

 (ii)

 (iii).....

 (iv).....

- (b) Why physics is known to be a natural fundamental science? (3 marks)

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- (c) Differentiate between theoretical physics and experimental physics. (3 marks)

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4. (a) How physics is related to the following fields: (4 marks)

(i) Chemistry.....
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(ii) Mathematics.....
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(b) The operation of universe lead to a lot of phenomena like motion, maintaining the shape of the earth, light, heat and many others. The vastness of these phenomena cannot be covered within a single domain of knowledge. Describe in brief the sub-field (branches) that could cover this vast knowledge. (6 marks)

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5. (a) Explain how you will apply physics in your daily life. Use any four points. (4 marks)

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(ii).....
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(iii).....
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(iv).....
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(b) A group of students is studying the relationship between the mass of an object and the force required to move it across different surfaces. They change the mass of the object and measure the applied force. Identify the dependent, independent, and controlled variables in this investigation.(6 marks)

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6. (a)What is the difference between a micrometer having 100 divisions and one with 50 divisions?(4 marks)

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- (b) Write limitations of using a micrometer screw gauge to measure length.three point (6 marks)

(i).....

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(ii).....

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(iii).....

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7. (a) NUWAIRA believes that physics is not important subject, thus she always not like to enter the physics session at his school. How can you advise NUWAIRA to attend the physics sessions. Three points.(6 marks)

(I)

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(II)

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(III)

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- (b) How does energy shape the surroundings of man?(4 marks)

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8. (a) Draw and label well the diagram of vernier calliper.(5 marks)

(b) Draw the diagram of micrometer screw gauge and label well.(5 marks)

9. (a) A vernier caliper is used to measure the thickness of a metallic sheet. The main scale reading is 5.2 cm, the vernier constant is 0.02 mm, and the 3rd vernier scale division coincides with a main scale division. Determine the precise thickness of the sheet, assuming no zero error.

- (b) You are measuring the diameter of a small steel rod. The main scale reading is 5 mm, and the thimble scale aligns perfectly at 28 divisions. Calculate the diameter of the steel rod.

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SECTION C (15 MARKS)

10. a) What is scientific method? (1 marks)

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(b) Outline seven steps to be followed in writing scientific report in physics.(7 marks)

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- ii.
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- iii.
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- iv.
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- v.
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- vi.
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- vii.
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(c) Use diagram to name all steps involved in a scientific investigation? (7 marks)

