

Subject: **Science/Physics**

Grade 9+





Practice Question paper 1 50 marks

Name of student:

1. What is the S.I. unit of energy?

- A: m
- B: J
- C: m/s
- D: kg

2. What is the most suitable instrument to measure the length of a laboratory?

A: 15-cm ruler	B: 30-cm ruler	C: metre rule	D: measuring tape
			

3. Which one of the following is an instrument that can be used to measure volume?

- A: thermometer
- B: beaker
- C: electronic balance
- D: compression balance

4.

The diagram shows a cat sitting on top of a furniture. At this **height**, the cat has

- A: light energy
- B: gravitational potential energy
- C: kinetic energy
- D: electrical energy



5.

The diagram shows a cheetah running after its prey on a level ground. Both animals have

- A: light energy
- B: electrical energy.
- C: kinetic energy
- D: gravitational potential energy



6. Which one of the following uses a **non-renewable** source of energy?

- A: A coal power station
- B: A hydropower station
- C: A wind power station
- D: A solar panel

7. When a car accelerates on a level road, its speed,

- A: remains zero
- B: remains constant
- C: increases
- D: decreases

8. Which one of the following is **not** a characteristic of images formed by a plane mirror?

- A: The image is real
- B: The object and image are of the same size
- C: The image is upright
- D: The image distance from the mirror is same as the object distance from the mirror.

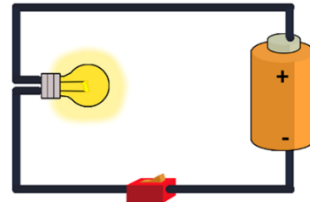
9. Which one of the following is an electrical insulator?

- A: Copper
- B: Silver
- C: Dry wood
- D: Aluminium

10.

The diagram shows a bulb connected to a dry cell in a closed circuit.
Which one of the following circuit components is the source of energy in the circuit?


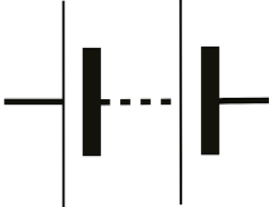


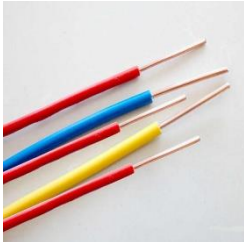
- A: dry cell
- B: switch
- C: bulb
- D: connecting wire



2. State whether the following statements are **True** or **False**. (5 marks)

(a) A cube is a regular solid	
(b) Period is the time taken by a pendulum to complete ten oscillations	
(c) Petrol is a non-renewable source of energy	
(d) The moon is a luminous body	
(e) Electric current is due to electrons flowing in wires	

3. Match the items in column A with the corresponding item in column B. [5 marks]

Column A		Column B
		Converts electrical energy into light energy
		Supplies electrical energy
		Connect all components in a circuit
		Symbol of a battery
		Use to stop or allow the flow of current in a circuit

4. Fill in the blanks by choosing the correct word from the list below.

Each word can be used only once. [5 marks]

chemical potential light kinetic heat electrical

- (a) The battery of our mobile phone contains energy.
- (b) As we climb up a mountain our energy increases.
- (c) When a bulb is switched on, energy is converted into energy and energy.

5. [12 marks]

The analogue stopwatch shows the time taken by an athlete to run a 150 m race.

- (a) Read the time in seconds shown on the stopwatch. [2]

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- (b) How will you check if the stopwatch has zero error? [2]

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- (c) Define speed and state its SI unit. [2+1]

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- (d) Why is speed a scalar quantity? [2]

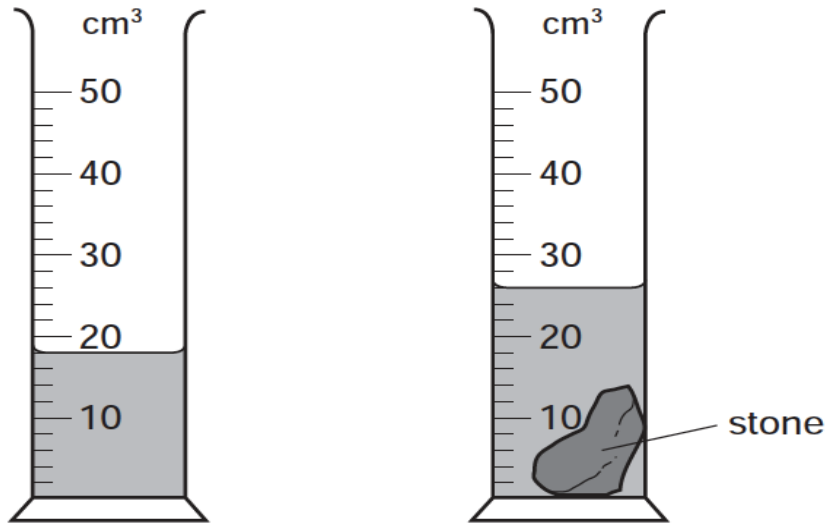
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- (e) Write down the word equation for calculating average speed. [1]

$$\text{average speed} = \text{-----}$$

(f) Use the equation to calculate the average speed of the athlete. [2]

6. The following experiment is used to measure the volume of a stone. [8 marks]



(a) This method of measuring volume is known as method. [1]

(b) Why is this method appropriate for this stone? [2]

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(c) Look at the diagram carefully and complete the table. [3]

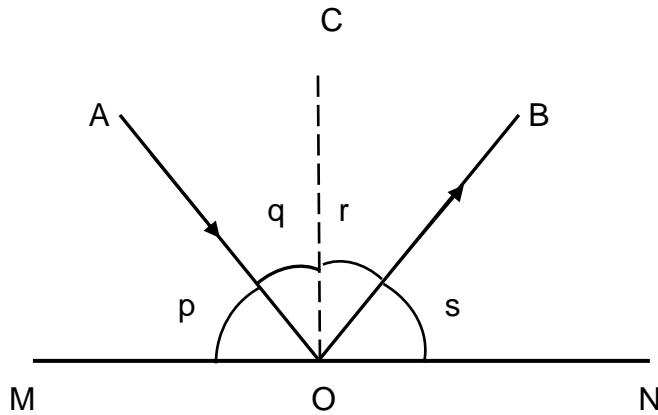
Volume of water + stone cm ³
Volume of water cm ³
Volume of stone cm ³

(d) Parallax error must be avoided while reading volume from the measuring cylinder. How can we avoid parallax error? [2]

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7. The diagram below shows a ray of light reflected by a plane mirror. (5 marks)



(a) Which one is the normal line? Tick (\surd) the correct answer. (1)

AO

CO

BO

(b) Label the incident ray. (1)

(c) Which two angles must be equal? Tick (\surd) the correct answer. (1)

p and q

q and r

q and s

(d) What do we mean by Lateral Inversion? (2)

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