



GAUTENG PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

EKURHULENI NORTH DISTRICT

SUBJECT	NATURAL SCIENCES
GRADE	8
YEAR	2025
DATE	18 November 2025
TASK	END OF YEAR EXAMINATION
TIME ALLOCATION	1,5 HOURS
MARKS	80

SCHOOL NAME: _____

NAME OF LEARNER: _____

DATE: _____

CLASS: _____

This paper consists of 11 pages and 7 questions.

QUESTION	1	2	3	4	5	6	7	TOTAL
POSSIBLE MARK	16	9	12	10	8	19	6	80
LEARNER MARK								
MODERATOR MARK								

INSTRUCTIONS AND INFORMATION

1. Write your name and class on the spaces provided.
2. Answer all the questions in this question paper. Write your answers in the spaces provided.
3. The paper consists of **SECTION A** and **SECTION B** based on the prescribed content framework in the CAPS Document.
4. Allocation of marks: SECTION A: **16**
SECTION B: **64**
5. The examination consists of 7 questions.
6. Follow instructions of each question.
7. All drawings should be done in **pencil** and labelled in **blue ink**.
8. Write neatly and legibly.

SECTION A

QUESTION 1

1.1 MULTIPLE CHOICE

Various options are provided as possible answers to the following questions.

Choose the correct answer and **CIRCLE IT.**

1.1.1 When a ruler becomes negatively charged it has... (1)

- A. Lost electrons
- B. Gained electrons
- C. Lost protons
- D. Lost neutrons

1.1.2 A light year is the distance that light travels in (1)

- A. kilometres
- B. one year
- C. seconds
- D. one revolution

1.1.3 We can see things because: (1)

- A. Light reflects off objects
- B. Light is absorbed by the object
- C. Light is made up of a mixture of colours
- D. Light is absorbed by the retina

1.1.4 Asteroids come from the (1)

- A. Deep space
- B. Asteroid belt
- C. Oort cloud
- D. Mars

1.1.5 In a simple circuit, the bulb lights up when the switch is closed (1)
because

- A. The bulb is a resistor
- B. The bulb produces electricity
- C. The circuit has been completed
- D. There is energy in the light bulb (5)

1.2 Match the items in COLUMN B with their correct meaning in COLUMN A.

Write your answer in COLUMN C.

COLUMN A	COLUMN B	COLUMN C
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1.2.1 collection of stars held together by mutual gravity	A. Electric shock or spark	1.2.1
1.2.2 A magnet in which the magnetic field is produced by a flow of charge	B. comet	1.2.2
1.2.3 An icy body that releases gases and dust when it gets close to the sun	C. electromagnet	1.2.3
1.2.4 The result of a sudden electrical discharge of static electricity	D. orbit	1.2.4
1.2.5 The path that an object takes around a larger object	E. galaxy	1.2.5
	F. resistors	

(1 × 5 = 5)

1.3 Give the correct scientific term for each of the following descriptions.

Write only the term next to the question number.

1.3.1 A component which opens and closes a circuit _____ (1)

1.3.2 A group of stars in a pattern is called _____ (1)

1.3.3 A special wire which melts and breaks the circuit when there is an electrical overload _____ (1)

1.3.4 An imaginary line on a reflective surface that is perpendicular to the surface _____ (1)

1.3.5 The third planet from the sun _____ (1)

1.3.6 Device used to observe objects in space _____ (1)

(6)

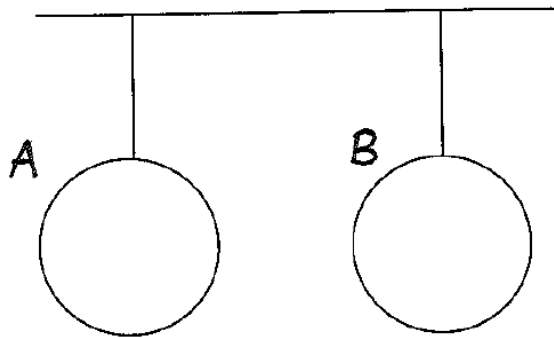
TOTAL SECTION A:16

SECTION B

QUESTION 2

Study the following diagram and answer the questions that follows

2.1. Two charged balloons are hanging from a ceiling by a light thread.



2.1.1. Using the information above, what charge does balloon B have? Give a reason for your answer. (3)

2.1.2. State whether balloon A lost or gained electrons. (1)

2.1.3 After a while, the two balloons repel each other. Suggest a reason why this happens. (2)

2.2 The tree in the picture below has been struck by lightning.



Give three precautions that one should take to prevent being struck by lightning during a storm.

(3)

[9]

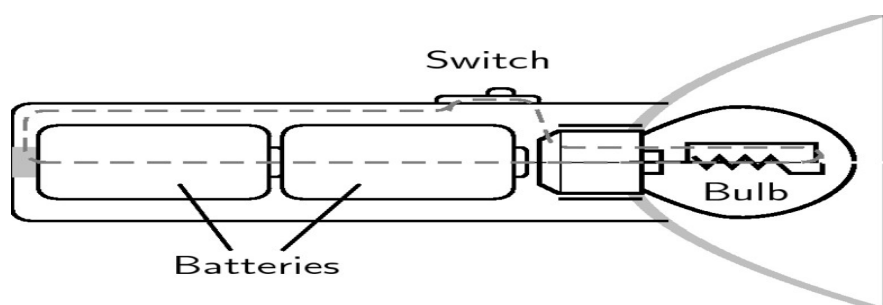
QUESTION 3

3.1 Draw the circuit symbols of the following components and give their functions

Name of symbol	Drawing of symbol	Function in a circuit
Bulb	(a)	(b)
Open switch	(c)	(d)
Battery	(e)	(f)

(1 × 6 =6)

3.2 The diagram below shows the components of a torch.



3.2.1 **Draw a labelled** circuit diagram of this torch in the space given below
(note: use circuit symbols)

(4)

3.2.2 Define the term short circuit

(2)

[12]

QUESTION 4

4.1 A group of grade 8 learners wanted **to investigate the effects of adding more light bulbs in series in a circuit**. The learners set up a circuit with three cells and one light bulb. They observed and recorded the **brightness** of the bulbs. They added a second bulb and observed the brightness of the bulbs. Finally, they added a third bulb, made observations and recorded the brightness of the bulbs

4.1.1 Formulate the aim of this investigation.

(2)

4.1.2 Identify the:

- (a) independent variable _____
(b) dependent variable _____
(c) fixed/ controlled variable _____ (3)

4.1.3 A table of results was drawn as shown below. Fill in the missing information that the learners collected during the investigation.

Number of cells	Number of bulbs	Brightness of the bulbs
3	1	
3	2	
3	3	

(3)

4.1.4 Draw a conclusion for this investigation.

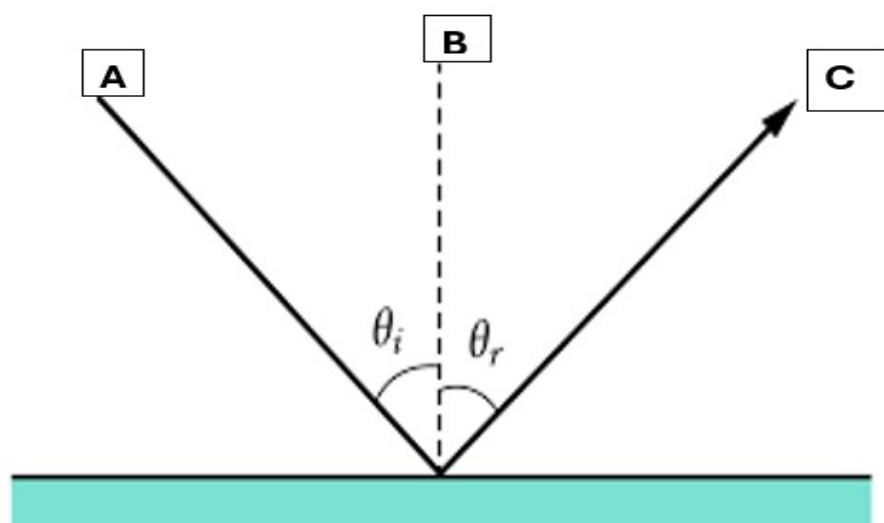
_____ (2)

[10]

QUESTION 5

5.1 The diagram below shows how a ray of light is reflected off a reflective surface.

Study the diagram and answer the questions that follow.



5.1.1 Provide labels for A, B, and C

A _____

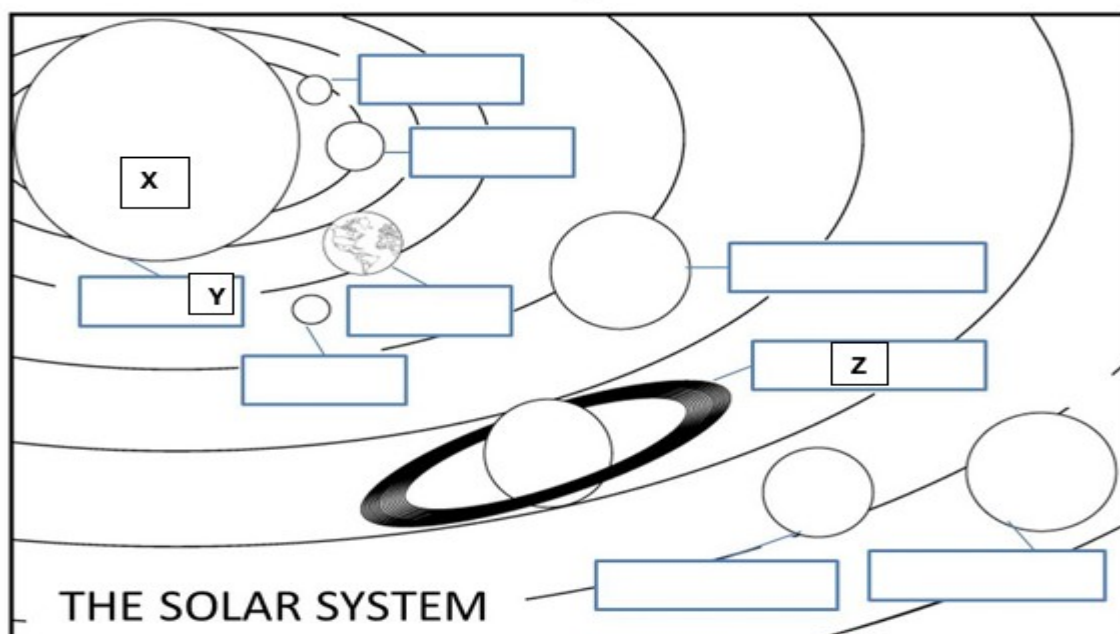
B _____
 C _____ (3)

5.1.2 What is the relationship between angle of incidence (i) and angle of reflection (r).
 _____ (1)

5.1.3 Define each of the following terms
 (a) Opaque _____ (2)
 (b) Luminous _____ (2)
[8]

QUESTION 6

6.1 The diagram below represents the solar system. Study the diagram and answer the questions below.



6.1.1 Provide labels for X, Y and Z
 X _____
 Y _____
 Z _____ (3)

- 6.1.2 What keeps all these bodies in their orbit around the sun?
_____ (1)
- 6.1.3 Name the star that is at the centre of the solar system _____ (1)
- 6.1.4 Describe the importance of the sun for life on Earth.

_____ (2)
- 6.1.5 Besides the planets name **three other objects** that are found around the sun

_____ (3)
- 6.1.6 Earth is the only planet in our solar system that can support life. List the four basic conditions needed for life on earth.
(i) _____
(ii) _____
(iii) _____
(iv) _____ (4)
- 6.1.7 What is the difference between an asteroid and a comet.

_____ (4)
- 6.1.8 What is the name that is given to the group of the last four planets from the sun?
_____ (1)

[19]

QUESTION 7

The diagrams below shows two different types of telescopes.



7.1.1 Identify the type of telescope represented by each of the pictures above.

A _____

B _____ (2)

7.1.2 South Africa has one of the world's largest telescopes called SALT. What does SALT stand for.

_____ (2)

7.1.3 Write down two conditions that exists in South Africa that makes it easy to observe the sky

_____ (2)

[6]

TOTAL SECTION B:64

GRAND TOTAL: [80]