

S.1 HOILDAY ASSIGNMENT TERM 1 2020

PHYSICS

1(a). Define the term physics.

(b) State the branches of physics clearly spelling out what each branch is concerned with.

(c) As a student of physics, explain the importance of studying the subject.

2(a) What is a physics laboratory?

(b) Briefly explain any seven laboratory safety rules and regulations.

3(a) What is length? State its S.I unit and any other units for length.

(b) Name any four instruments used in the measurement of length.

4(a) Define area and state its S.I unit.

(b) Explain how you would measure the area of

- i. Regular objects.
- ii. Irregular objects.

(c) By the use of graph paper, estimate the area of any one irregular object in your community.

5(a) Define force and state its S.I unit

(b) Study the environment around your homestead and write down any four types of forces.

(c) Explain each of the forces discovered in (b) above and state areas where these forces can be applied day to day life.

6(a) Define volume and state its SI unit.

(b)Explain how you can determine the volume of an irregular object like a stone(use diagrams to illustrate your work)

7(a) Define mass and state its S.I unit.

(b) Name any four instruments used in measurement of the mass of a body.

(c) State five differences between mass and weight of a body.

8(a) Define density and state its S.I unit.

(b) What does it mean when we say the density of copper is 8.9gcm^{-3} ?

(c) Calculate the density of a tin of mass 10kg whose dimensions are $2\text{cm} \times 5\text{cm} \times 7\text{cm}$.

9(a) What is matter?

(b) State the properties of solids, liquids and gases.

(c) Explain how particles are arranged in each of the states of matter. (use diagrams to illustrate your answers)

10(a) What is scientific notation?

(b) Express the following numbers in scientific notation

i. 0.000233

ii. 400

iii. 20.04

iv. 600451

(c) Convert the following

i. 2cm^2 to m^2

ii. 0.4cm^2 to m^2

iii. 7cm^3 to m^3

iv. 0.68cm^3 to m^3

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