

PHYSICS FORM 1

KAGONDO SECONDARY SCHOOL

END TERM 2 EXAM 2017

Answer all questions provided in this paper in the spaces provided.

1. Define the term physics (1mk)
2. Name the two instruments used to measure length (2mks)
3. Convert the following as indicated (4mks)
 - a) 2,000g into kg
 - b) 20N into kg
 - c) 10 tonnes into kg
 - d) 20kg into mg
4. Define the term density (1mk)
5. State the S.I unit of density (1mk)
6. Distinguish between density and relative density of substances (2mks)
7. A 100cm^3 measuring cylinder has a mass of up to 60g. When it is filled with dry sand up to the 50cm^3 mark, its total mass is 140g. What is the density of sand. (3mks)
8. A man has 2m^3 of concrete delivered to his home and he needs to carry it down in wheel barrow. If each barrow load weighs 2500N, how many trips will he have to make (ρ of concrete = 3000kg/m^3) (4mks)
9. A 1000cm^3 can of oil is found to have a mass of 1.04 kg before it is opened and a mass of 0.14 kg after it has been opened and all the oil poured out
 - i) What mass of oil was in the can before opening (1mk)
 - ii) What is the density of oil (3mks)
 - iii) Explain what you would expect to happen if the oil were poured into water (ρ of water = 1000kg/m^3) (3mks)
10. A student examined some smoke particles in a smoke cell covered with a thin, glass plates and kept under microscope. The particles are well illuminated
 - a) What does the student see when he looks through the microscope (2mks)

b) Give an explanation of what he sees (3mks)

c) What is the purpose of the glass cover (2mks)

d) What is the name of the effect above (2mks)

11. Define the term force (1mk)

a) Give three examples

b) Give the difference between cohesive and adhesive force (2mks)

c) State three ways of reducing friction (3mks)

d) State two factors affecting surface tension (2mks)

e) Insert if applicable where the forces below can be used. Magnetic force, Upthrust force, Surface tension, action and reaction.

i) To fire gun (1mk)

ii) Separating a mixture of iron fillings and sand (1mk)

iii) When swimming (1mk)

iv) Separating of ghee from milk (1mk)