

NAME _____ ADMNO _____ CLASS _____

GATITU GIRLS SECONDARY SCHOOL

PHYSICS FORM 2

END TERM EXAM, 2016

1a) Define the term force and state its S.I units (2marks)

b) List seven types of force (7marks)

2. Differentiate between mass and weight (5marks)

3. The weight of a body is 45N, if the gravitational field strength equal to 9 N/kg. Calculate the mass of the body (2marks)

4. Define pressure and state its S.I units (2marks)

5) A car of mass 200kg has 4 wheels whose average area is 1.25m². Calculate the maximum pressure it exerts on the ground (4marks)

6) A form 2 is girl swimming 10M below the surface of water whose density is 1.030g/cm³. Calculate the:

i) Pressure acting on her due to water above (3marks)

ii) Force acting on her due to water ^{if} her average area is 0.8M² (3marks)

7) The barometric height of a school is 66cm of mercury. If the barometer height at the sea level is 76cm of mercury. Find the altitude of the school given that density of dry air is 1.25kg/m^3 and that of mercury is 13600kg/m^3 (3marks)

8) Name two common types of thermometric liquids (2marks)

9) List four properties of a thermometric liquid (4marks)

10) Explain the purpose of a constriction on the capillary ^{bore} ~~above~~ of a clinical thermometer (2marks)

11) State **four** factors which affect conductivity in a solid (4marks)

12) Explain why salty water conduct better than pure water (2marks)

13) Define the term diffusion (1mark)

14) What are the factors which affect the rate of diffusion? (2marks)

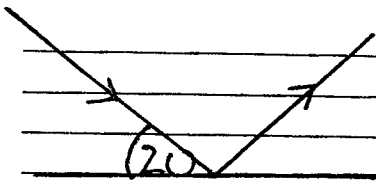
15) In a smoke cell experiments, bright specks are observed moving in a constant random motion. Explain what these bright specks represent and why they behave like so (3marks)

16) Define the term light (1mark)

17) State laws of reflection (2marks)

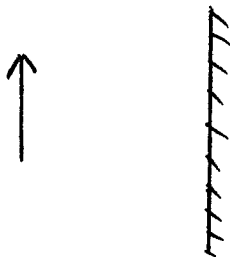
18) List four uses of light (4marks)

19) a). calculate the angle of reflection when the ray of light strikes the mirror as shown (2marks)



b) When the mirror is rotated through 10° clockwise directions. Calculate the new angle of reflection (2marks)

c) Use a suitable method to locate the image of the object shown below



20) a) what is electrostatics? (1mark)

b) When is a body said to be positively charged (2marks)

c) When shoes are polished, they soon become dusty. Explain (2marks)

d) i) state four uses of gold leaf electroscope (4marks)

ii) How can you charge a gold leaf positively by induction method (4marks)

iii) Petroleum tankers have a loose chain under their chassis. Explain the purpose of the chain (2marks)

iv) State **three** uses of electrostatics (3marks)

21)a) Define electricity (1mark)

b) using a diagram differentiate between closed and an open circuit (2marks)

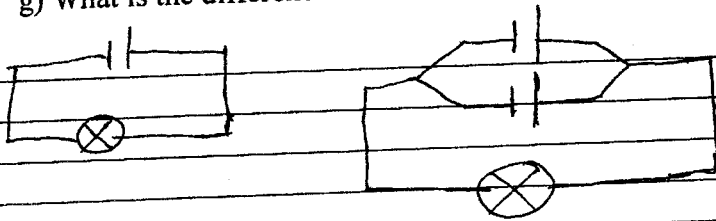
c) Explain the use of a cell in an electric circuit (2marks)

d) Differentiate between electromotive force and potential difference (2marks)

e) Calculate the amount of current flowing ^{thru} a bulb when a charge of 240 coulombs passes through bulb in 2 minutes (3marks)

f) Explain why ~~bulbs~~ are connected in parallel in domestic wiring system (2marks)

g) What is the difference in current in the circuit below (2marks)



h) With suitable examples, differentiate between ^{conductors} ~~conducted~~ and insulators (2marks)
