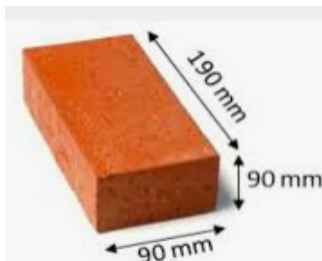


END OF YEAR EXAMINATIONS  
PHYSICS S1  
TIME: 2 HOURS

Instructions  
Answer All questions.



1. Kasakya makes bricks to rise incomes that would support his family. If the dimensions of the bricks are shown, calculate the volume of a single brick Kasakya made in  $\text{cm}^3$ .

.....  
.....  
.....

b) Assuming that the mass of the dry brick is 150g, calculate the density of the brick

.....  
.....

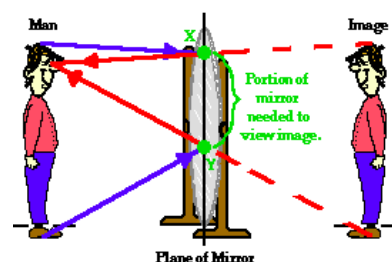
c) Currently, the price for bricks on the Ugandan market, majority produced using traditional technologies, goes for an average of Shs 250. If Kasakya plans to sell 35000 bricks, how much money will he earn.

.....  
.....

2. A man was standing in front of the mirror as shown in the figure. State the properties of his image as he observes himself

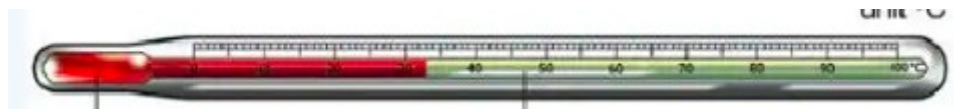
.....  
.....  
.....

what are the two laws that apply to this situation



.....  
.....  
.....

3.



consider the figure above:

a) Identify the instrument shown

.....

b) what are the possible liquids used in the instrument and why

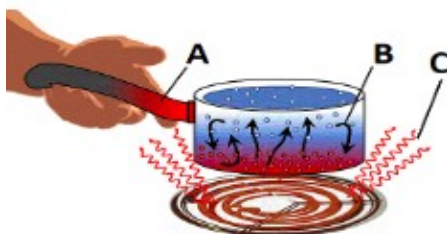
.....  
.....

c) What does one need to know before calibrating the instrument above

.....

.....

d) Identify the mode of heat transfer as labelled in the image below.



A.....

B.....

C.....

4. The diagrams, A, B and C, show the horizontal forces acting on a moving car .Match each diagram to the description of the car's motion at the moment when the forces act. Draw only three lines.



A

stationary



B

constant speed



C

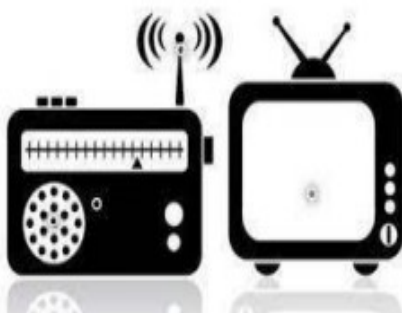
slowing down

accelerating forwards

5. The importance of physics in our lives is highlighted by the many applications that physics has made possible in people's lives, and which have become one of the indispensable necessities of life however most people are not aware of this significance especially our old grandparents. Study the pictures below and the questions. (40 marks)



A



B



C



D



E



F



G



H

a) as an s.1 physic learner, explain some of the guideline that must be followed during the above study in a science laboratory.

.....

.....

.....

b) From the above highlighted images identify the activity in figures above and explain how physics helps in our daily life. In each case identify the figure, how it is applicable, and the branch of physics where the above figure falls under.

.....

.....

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(c) From pictures in A, B, C, D, E, F, G and H above write down the possible career opportunities (occupation undertaken) at the end of your education.

.....

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(d) The table below contains some physical quantities commonly used in real life situations; complete the table using the right symbol, unit, and quantity.

QUANTITY	SYMBOL	UNIT	SYMBOL
Mass	m	kilogram	Kg
Length	l		m
		Seconds	
Electric current	I		
		Kelvin	K
Area			m <sup>2</sup>
Density		Kilogram per cubic centimeter	
Pressure			Pa