**GATITU MIXED SECONDARY SCHOOL**

 **PHYISICS FORM III**

 **C.A.T 2 TERM II 2013**

**NAME:­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ADM:\_\_\_\_\_\_\_\_\_\_\_\_DATE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Give a reason why attraction in magnetism is not regarded as a reliable method 0f testing polarity of a magnet.(2mks)

2. The figure below shows two bulbs A and B interconnected by U-shaped glass tube containing light oil.Bulb A is painted while B is colourless.An electric heater is placed equidistant from the bulbs.

State and explain the observations made when the heater is switched on for some time.(3mks)

3. (a)A car starts from rest with uniform acceleration of 5ms-2..How long does it to cover a distance of 400m.?(2mks)

 ( b)A bullet shot vertically upwards rises a maximum height of 1000M.Determine:

 i)The initial velocity of the bullet.(3mks)

 ii)The time of flight of the bullet.(2mks)

4.A ray of light passes through air into a certain transparent material. If the angles of incidence and refraction are 60o and 35o respectively. Calculate the refractive index of the material.(3mks)

5. State Snell’s law. (1mk)

6. Explain why light bends as it moves from one medium to another at an oblique angle.(2mks)

7. Calculate the speed of light in diamond of refractive index 2.4.(speed of light in air 3.o x 108 m/s).(3mks)

8.A body moving with uniform acceleration of 10m/s2  covers a distance of 320m.If its initial velocity was 60m/s.Calculate final velocity. (2mks)

9. (a)Define pressure and state its SI Units (1mk)

 (b)The figure below shows hydraulic break system

 i) Name the parts A, B, C (3mks)

 ii) Stipulate THREE characteristics of the fluid used in the system above.(3mks)

 **\*\*THE END\*\***

 *“The size of your success is measured by*

 *the strength of your desire;*

 *the size of your dream;*

 *and how you handle disappointment along the way”*

 Mr. Karanja