**GATITU MIXED SECONDARY SCHOOL**

**PHYSICS FORM 4 OPENER TERM 2 2015 EXAM**

**ATTEMPT ALL QUESTIONS**

1. State the three types of photo cells 3mks
2. Explain how infra red radiation is produced and detected. 3mks
3. State three properties of the object to be immersed in a liquid. 3mks
4. Define the functions of the following parts of the eye.
5. Aqueous humour 1mk
6. Vitreous humour 1mk
7. Fovea 1mk
8. State three applications of the photo emissive cell. 3mks
9. State and explain the two special features of the hydrometer. 4mks
10. State the applications of visible light. 3mks
11. How is it possible for sub marines to sink? 3mks
12. The threshold wavelength of a photo emissive surface is 0.45um. calculate

( take h=6.63 × 10- 34Js and Me = 9.11 × 10-31kg)

1. Its threshold frequency 2mks
2. The work function in ev 2mks
3. A lens forms an image that is four times the size of the object on a screen. The distance between the object and the screen is focused.
4. State with reason what type of lens was used. 1mk
5. Calculate the focal length of the lens. 3mks
6. An x- ray machine produces radiation of wavelength 1.0 × 10-11m. calculate :
7. The frequency of the radiation. 2mks
8. Its energy content. 2mks
9. A model ferry boat 50cm long and 20cm wide floats in fresh water. If the ferry sinks 6 cm as a result of loading, calculate the load on the block. 3mks