GATUITU DAY MIXED SECONDARY SCHOOL

PHYSICS FORM 2

END OF TERM 2 2012 EXAM

1. Express the following in cm2 (2mks)

a. 7.5 m2

b. 0.09 m2

2. Find the volume of a sphere whose radius is 3 cm (2mks)

3. Convert each volume to m3 (2mks)

a. 20 l

b. 1 ml

4. Define mass and state its SI unit (2mks)

5. The density of mercury is 13.6 g/cm3, find the volume of 2720 g of mercury in m3 (3mks)

6. Explain the following forces (3mks)

a. gravitational force

b. cohesive force

c. adhesive force

7. A man has a mass of 70 kg , calculate

a) his weight on earth , where the gravitational field strength is 10 N /kg (2mks)

b) His weight on the moon where the gravitational field strength is 1.7 N /kg (2mks)

8. Define pressure (1mk)

9. A man of mass 84 kg stands upright on a floor if the area of contact of his shoes and floor is 420 cm3 determine the pressure he exerts on the floor. (3mks)

10. Give two effects of the anomalous expansion of water. (2mks)

11. Convert the following to Kelvin (3mks)

a. 100 0c

b. 0 0c

c. -123 0c

12. An object at height 5 m is placed 10 m from a pinhole camera, calculate:

a. the size of the image if its magnification is 0.01 (2mks)

b. the length of the pinhole (2mks)

13. State the basic law of magnetism (1mk)

14. List three methods used in magnetization (3mks)

15. Differentiate between soft and hard magnetic materials (2mks)

16. Express in standard form (3mks)

i. 1595

ii. 29.606

iii. 0.0000009231

17. state the principle of moments (1mk)

18. A uniform metre role pivoted at its centre is balanced by a force of 4.8 N at 20 cm mark and same two other forces F and 2 N on the 66 cm and 90 cm mark respectively. Calculate the force F (3mks)

20 50 66 90

4.8 N F 2.0 N

19. State the three states of equilibrium (3mks)

20. An object is placed 30 cm from a concave mirror of focal length 20 cm, calculate

a. the image position (2mks)

b. the magnification (2mks)

21.State the flodke’s law (2mks)

22. Define (3mks)

i. frequency

ii. amplitude

iii. period

23. A sound wave travels 12 m in 4 seconds if the frequency of the wave is 2H2 calculate (4mks)

a. speed of wave

b. wavelength of wave

GOOD LUCK AND HAPPY HOLIDAY