**GATITU MIXED SECONDARY SCHOOL**

**PHYSICS FORM 2 MID TERM EXAM TERM 2 2015**

1. The diagram below shows the magnetic field pattern between two magnets X and Y.



1. Identify the poles P and Q 2mks
2. State which of the two magnets X and Y is stronger. 1mk
3. Sketch the magnetic field pattern around the following arrangement. 2mks



1. State the magnetic law. 2mks
2. Define the following terms.
3. Magnetic field 1mk
4. Magnetic poles 1mk
5. Differentiate between magnetic material and non - magnetic material and give example of each. 4mks
6. Explain the domain theory. 5mks
7. Explain four methods of magnetization of a magnetic material. 8mks
8. Give two applications of magnets. 2mks
9. Give three types of calipers. 3mks
10. Label the figure below. 5mks



A

B

C

D

E

1. Define the term pitch. 1mk
2. Find the area of the rectangle measuring 3-93 cm by 5.35 cm. express your answer to 2 d.p. 3mks
3. A sphere of diameter 6.0 cm is moulded into this uniform wire in metres. (take II =22/7) 3mks
4. 100cm3 of fresh water of density 1000kg m-3 is mixed with 100cm3 of sea water of density 1030 kg m-3.. calculate the density of the mixture. 4mks
5. Complete the graph below showing the anomalous expansion of water. 2mks



1. Define the anomalous expansion of water. 1mk
2. Define centre of gravity and state factors affecting stability of objects. 3mks
3. State the principle of moment. 2mks
4. The figure below shows a metre rule balanced by a weight of 2N.



Determine the weight of metre rule. 3mks

1. The figure below shows a claw hammer removing a nail from a piece of wood.



1. By mean of an arrow shows on the diagram the direction of the load. 1mk
2. What physical law is involved in the removal of the nail? 1mk
3. State three application of anti parallel forces. 3mks
4. Define the following terms.
5. Centre of curvature ½ mk
6. The principle focus 1mk
7. Focal plance ½ mk