NAME……..……**ADM NO**……..

SCHOOL…….……**DATE**……..

STUDENT'S SIGNATURE ……....

PHYSICS

TIME: 2 ½ HOURS
March 2017

INSTRUCTIONS TO STUDENTS

1. Answer all questions in this question paper .
2. All your answers must be written in the SHEETS provided.

1. What is meant by the term 'basic quantities' (1 mk)

……

……

2. Define length and state its SI unit (1 mk)

……

……

3. Name two types of errors and state how each is minimized when measuring the length of objects. (4 mks)

……

……

……

4. Describe how you would estimate the thickness of one paper in a given book if you are provided with a metre ruler only (3 mks)

……

……

……

……

5. State three limitations of using the displacement method when determining the volume of an irregular solid (3 mks)

……

……

……

……

6. A wire of radius 6 mm and length 400 is melted into a sphere. Calculate the radius of the sphere in centimeters. (3 mks)

7. Convert 5 g/cm^3 to the SI unit. (2 mks)

8. Using the following masses and volumes of substances, calculate their densities in SI unit.

   a) 200 mg, 0.0004m^3 (2 mks)

   b) 0.86 kg, 1000000 mm^3 (2 mks)

9. 100 cm^3 of water is mixed with 50 cm^3 of concentrated acid of density 1.2 g/cm^3. Assuming no change in volume, find the average density of the mixture. (Take density of water = 1.0 g/cm^3) (4 mks)

10. A density bottle weighs 70 g when filled with water and 94 g when filled with a liquid A. Find the density of liquid A given that the density of water is 1000 kg/m^3. (5 mks)

11. State four effects of forces (4 mks)

……

……

……

……

……

12. State three types of forces that act between objects that are not in contact (3 mks)

……

……

……

……

……

13. Describe two types of molecular forces (4 mks)

14. ……

……

……

……

……

15. State three areas of application of capillary rise. (3 mks)

……

……

……

……

……

16. Distinguish between mass and weight and state SI units (4 mks)

……

……

……

……

……

17. Differentiate between vector quantities and scalar quantities (2 mks)

……

……

……

……

……