

DEPARTMENT OF INDUSTRIAL PHYSICS
FACULTY OF NATURAL AND APPLIED SCIENCES
MICHAEL AND CECILIA IBRU UNIVERSITY, AGBARHA-OTOR
SECOND SEMESTER 2016/2017 CONTINUOUS ASSESSMENT TEST
COURSE CODE & TITLE: PHY 105 EXPERIMENTAL PHYSICS

Time: 1 Hour

Name:.....

Matric No. Department.....

INSTRUCTION: Answer All the Questions ON THE QUESTION PAPER. Write each answer in the gap provided, as it relates to each question.

1. The major sources of experimental errors are
2. The errors which arise due to individual differences are known as
3. Erratic errors can be minimized by
4. Another name for fractional errors is
5. A student measured the length of a simple pendulum as 6.5 cm. If the accuracy of the metre rule used for the measurement is 0.1 cm, the actual length of the pendulum can be written as
6. Calculate the fractional error in a measurement given as 8.5 ± 0.1 cm.
7. The most general equation of a straight line is
8. Find the slope of the straight line given by $2y = -6x + 12$
9. Round off 4.765 to 3 significant figures.
10. Find the gradient of a line whose coordinates are (3,2) and (5,4).
11. Sketch the shape of a graph with a negative gradient.
12. If $R = \frac{a^4\theta}{2}$, write down the expression for the maximum error in R
13. Find the mean value of the readings given as 5.00, 3.00, 0.00, 7.00, 2.00 and 1.00 cm.
14. Determine the range of the readings given as 60.0, 75.0, 80.0, 45.0, 25.0, 35.0, 40.0 and 85.0 cm.
15. If $F = 225 \pm 32$, what is the percentage error in F ?
16. Another name for the slope of a line is