KIPSUTER BOYS SECONDARY SCHOOL

CAT 1 TERM 2, 2017

FORM TWO **PHYSICS**

Name: _____ Adm. No. _____ Class: _____ Date: _____

Instructions:

i). Write your name, admission number, class & date in the spaces provided above.
ii). Check the question paper to ascertain that all pages are printed as indicated and that no question is missing.
*iii). Answer **ALL** questions in the spaces provided after each question.*

1. a)In an experiment to estimate the size of a molecule of oil, a drop of oil of volume $0.12mm^3$ was placed on a clean water surface. The oil spread into a patch of area $6.0 \times 10^{-4}mm^2$. Estimate the size of a molecule of olive oil. (3mks)

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b)In another oil film experiment, a student found that a drop of oil spread on the water surface to a maximum diameter of 28cm. If 200 such drops occupied $0.85cm^3$, estimate the diameter of a molecule of the oil. In the SI unit of length. (4mks)

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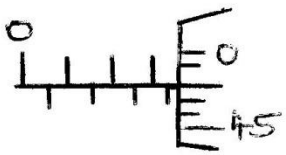
2. What are the readings of the micrometer screw gauges shown below. (4mks)

(i)



(ii)

3. How can it be shown that the strength of a magnet is concentrated at the poles?(2mks)

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4. a)A current of 0.5A flows in a circuit. Determine the quantity of charge that crosses a point in 4 minutes. (3mks)

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b)State two defects in simple cell .(2mks)

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c) Explain how one of the defect mentioned above is corrected in the dry cell. (1mk)

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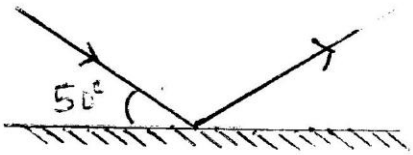
5. a)The figure below shows a ray of light being reflected from a mirror.



What is the angle of reflection and incidence?(2mks)

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b)State the laws of reflection. (2mks)

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c)What property of light is suggested by the shadow formation? (1mk)

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6. When a liquid is heated in a glass flask, its level at first falls then rises. Explain this observation. (2mks)

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7. Explain the domains theory in magnetism. (2mks)

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8. Give **two** ways of magnetizing a magnetic material. (2mks)

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