

FORM 1
PHYSICS
END TERM EXAM – MARCH 2016
TIME: 2 HRS

NAME.....ADMIN NO..... CLASS.....

INSTRUCTIONS

1. This paper consists of two sections A and B
2. Attempt all the questions in each section in the spaces provided after every question
3. All working must be clearly shown
4. Electronic calculators may be used.

E XAMINERS USE ONLY

| SECTION | QN | MARKS | CANDIDATES SCORE |
|--------------|-----|-----------|------------------|
| A | 1-7 | 40 | |
| B | 8 | 9 | |
| | 9 | 13 | |
| | 10 | 10 | |
| | 11 | 8 | |
| TOTAL | | 80 | |

SECTION A (30MKS)

1. Define Physics (1mk)

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2. Name 3 phenomena's that are properly explained by physics as a subject (3mks)

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3. Name four branches of physics (4mks)

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4. Give an example of a case where physics technology is used in medicine (2mks)

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5. i) What is a laboratory (2mks)

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- ii) List four basic laboratory rules (4mks)

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- iii) Name two causes of burns in the laboratory (2mks)

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- iv) What first aid measure may be administered in case of a burn (2mks)

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6. i) Distinguish between basic physical quantities and derived quantities (2mks)

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- ii) Give two examples of derived quantities (1mk)

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- iii) What are SI units in physics? (1mk)

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7. i) Complete the table below (6mks)

| Symbol of Units | SI Unit | Basic Physical Quantity |
|-----------------|---------|-------------------------|
| Kg | | |
| K | | |
| Mol | | |
| Cd | | |
| A | | |
| S | | |

SECTION B

- ii) Complete the table below by converting the given quantity into the stated units

| | | |
|---|----|------|
| m | cm | mm |
| | | 2500 |

- iii) Define area and give its SI unit (2mks)

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iv) A sheet of paper measures 25cm by 15cm. Calculate its areas in SI units (3mks)

9. Find the volume of a cylindrical tin of

i) radius 70cm and height 30cm in SI units (3mks)

ii) Draw and name any three devices that are used to measure volume of liquids (6mks)

iii) A sphere of radius 10cm is moulded into a uniform cylindrical wire of same radius.
Calculate the length of the wire in mm (4mks)

10. (i) The mass of 25cm^3 of ivory was found to be 45g. Calculate the density of ivory in SI units (3mks)

ii) An empty density bottle has a mass of 25g. Its mass is 50g when filled with water and 45g when filled with liquid L. Calculate the density of liquid L (Density of water is 1g/cm^3). (3mks)

iii) The mass of a density bottle of volume 50cm^3 is 10g when empty. Aluminum turnings are poured into the bottle and the total mass is 60g. Water is then added into the turnings till the bottle is full. If the total mass of the bottle and its contents is 90g. Calculate the density of aluminum turnings. (Density of water is 1g/cm^3) (4mks)

11.(i) At the start of a race the readings on a digital stop watch was 00:00:00. At the end of the race the reading was now 05:23:15. How long did the race last.? (2mks)

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ii) Define force and give its SI units (1mk)

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iii) State three effects of force (3mks)

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iv) List four types of force (2mks)

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