NAME:_____**STREAM:**_____

P535/2
PHYSICS
1HR 30MIN

BEGINNING OF TERM II EXAMS
S.2 PHYSICS

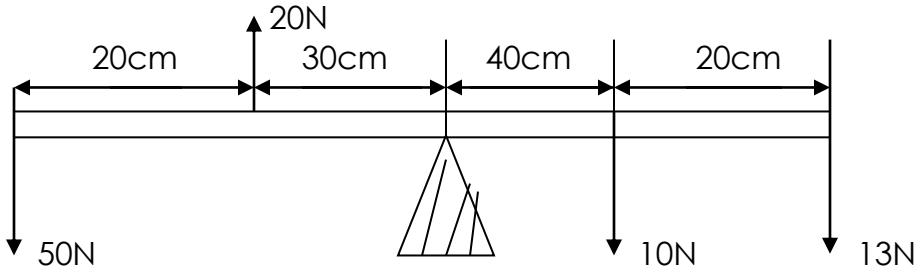
INSTRUCTIONS TO CANDIDATES:

- ***Attempt any 3(THREE) questions.***
- ***Neat and well organized work is a MUST. Disorganized work will lead to loss of marks.***

1.(a) Define

(i) The moment of a force. (1mk)
(ii) Couple of a force. (1mk)
(iii) Centre of gravity of a body. (1mk)

(b)(i) Obtain the resultant moment for the illustration below. (5mks)



(ii) Give two conditions necessary for a body to be in equilibrium. (2)

2.(a) Define the following terms:

(i) Conduction of heat. (1mk)
(ii) Radiation of heat. (1mk)

(b)(i) Describe a simple experiment to show radiation of heat from different surfaces. (4mks)

(ii) Alice picks tea from the kitchen in her flask and keeps it in the dormitory when she comes from class at break time to take her tea, she finds it quite cool in comparison with its original

temperature. If she tightly fastened the lid on the flask before she left. Explain what may be wrong with this flask that might have helped the heat to escape from the tea. (4mks)

3.(a)(i) What is meant by the term pressure? (1mk)
(ii) State the standard units of pressure. (1mk)

(b)(i) State the factors on which pressure in solids depends. (1mk)

(ii) A cuboid of dimensions 2cm x 3cm x 5cm is filled with water of mass 200g and sealed. If its mass when empty is 100g, calculate the maximum and least/minimum pressure it can exert on a table. (5)

(iii) Why is it easier to cut a piece of meat using a sharp knife than using a blunt one? (2mks)

4.(a)(i) What is physics? (1mk)
(ii) Give two reasons why you study physics. (1mk)

(b)(i) Draw a well labeled diagram of a micrometer screw gauge. (2mks)
(ii) Draw a scale of a micrometer screw gauge reading 5.7mm. (2mks)

(c)(i) Define density of a substance. (1mk)
(ii) Describe a simple experiment of how you can determine the density of a stone of known mass (M kg). (3mks)