ANESTAR SCHOOLS MID TERM TWO EXAM 2017

FORM TWO MATHEMATICS

NAME……ADM……CLASS……

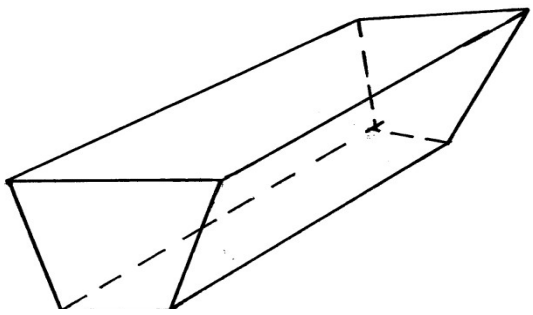
SECTION I (attempt all questions in this section)

1. Simplify the expression (3mks)

$$\frac{18x^2 - 8}{6x^2 - x - 2}$$

2. A line passing through the points A (-1,3x) and B (x, 3) is parallel to the line whose equation is $2y = 9-3x$. Write down the co-ordinates of A and B (3mks)

3. The figure below shows a trough which is 40 cm wide at the top and 25 cm wide at the bottom. The trough is 20cm deep and 4.5 m long. Calculate the capacity of the trough in liters.
(4mks)



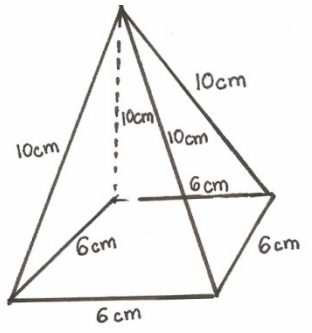
4. In a triangle ABC, AB=6cm, BC = 5cm and AC = 7cm. find the area of the triangle. (4mks)

5.volumes of two similar cylinders are 4752cm3 and 1408cm3. If the area of the curved surface of the smaller cylinder is 352cm2, find the area of the curved surface of the larger cylinder (3mks)

6. Given that tanØ= 0.75, without using a calculator or mathematical table. Find cosØ + sinø (3mks)

7.Solve for x given that $\frac{x-3}{5}=4-\frac{x-2}{2}$ (3marks)

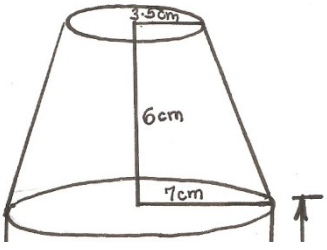
8. Calculate surface area of the solid below. (4mks)



9. The GCD of two numbers is 7and their LCM is 140. if one of the numbers is 20, find the other number
(3mks)

SECTION II (attempt all questions in this section)

10.Find the volume and total surface area of the solid below :given base radius as 7cm and top radius as 3.5cm, and height of 6cm. (10mks)



11. Two points A and B lie on the circumference of the circle, of the circle of centre O and radius 8 cm, where $\angle AOB = 80^0$. Calculate:

(a) The length of the minor arc AB. (2 mks)

(b) The length of the chord AB. (2 mks)

(c) The area of the sector AOB (2 mks)

(d) The area of triangle AOB. (2 mks)

(e) The area of the minor segment of circle cut off by AB. (2 mks)