FORM 1 TERM 1 2021

MATHEMATICS

1. A rectangular slab measures 8cm by 2cm by 14cmand has a mass of 610g.Calculate the density of the glass in kg/m^3. (3mks)

2. Solve the following simultaneous equations by elimination method
   $3x + 4y = 18$ and $5x + 6y = 28$ (3mks)

3. An arc of a circle subtends an angle 60^0 at the Centre of the circle. Find the length of the arc if the radius of circle is 42cm (take $\prod = \frac{22}{7}$) (3mks)

4. Classes in a school start at 8. 20am and at 4. 20 pm. Tea and lunch breaks take a total of two hours.
   a) How long does the lessons take? (2mks)

b) If there are eight equal lessons in a day, how long is each lesson?   (2mks)

5. Small cubes of side 2cm are to be packed into a rectangular container measuring 6m by 5m by 4m. Find the number cubes required?   (3mks)

6. a) A school water tank has a radius 2.1m and the height of 450 cm. How many litres of water does it carry when full?   (2mks)

    b) If the school uses 5000litres of water a day, approximately how many days will the full tank last?   (2mks)

7. The force of gravity on the moon is 1.6N/Kg .An astronaut weighs 670N on the earth's surface.Find:
    a) His mass.   (2mks)

b) His weight on the moon's surface. (2mks)

8. A car travels 160km on 20litres of petrol.How far can it go on 12litres of petrol if it maintained the same rate of fuel consumption? (3mks)

9. When meat is fried, its mass reduces in ratio 5: 12.A piece of uncooked meat has a mass of 4.8 kg. What mass is lost when it is fried? (3mks)