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| <u>FACULTY</u> | : EDUCATION |
| <u>DEPARTMENT</u> | : CHILDHOOD EDUCATION |
| <u>CAMPUS</u> | : SWC |
| <u>MODULE</u> | : MATHEMATICS FOR FOUNDATION PHASE 2B |
| <u>SEMESTER</u> | : Second |
| <u>SUPPLEMENTARY EXAM</u> | : SUPPLEMENTARY EXAMINATION 2019 |

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|---------------------------|------------------|-----------------------|---------------|
| <u>DATE</u> | : NOVEMBER 2019 | <u>SESSION</u> | : 08:30-11:30 |
| <u>ASSESSOR(S)</u> | : PROF K. LUNETA | | |
| <u>MODERATOR</u> | : PROF C. LONG | | |
| <u>DURATION</u> | : 2HOURS | <u>MARKS</u> | : 100 |

NUMBER OF PAGES: 5 PAGES

INSTRUCTIONS:

1. Answer ALL THE QUESTIONS.
 2. Number your answers clearly
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QUESTION 1

Define the following terms

- i. Geometric reasoning (2)
 - ii. Volume (2)
 - iii. Spatial Sense (2)
 - iv. Weight (2)
 - v. Time (2)
 - vi. In measurements what do you understand by the terms standard and none standard units of measurements, provide examples in each case. (2)
 - vii. With the aid of a diagram, name and explain an experiment one would carry out with learners in grade 2 to find volume of an irregular object? (3)
 - viii. Describe 6 Van Hiele Levels of geometrical development that learners go through. (6)
- [21]**

QUESTION 2

Define and draw the following angle

- i. Complementary angles (2)
 - ii. Supplementary angles (2)
 - iii. Congruent triangles (2)
- [6]**

QUESTION 3

Name the main units used to measure the following attributes in imperial and metric systems.
Draw the table in your answer sheet.

| Attribute | Imperial Units | Metric Units |
|-------------|----------------|--------------|
| Speed | | |
| Temperature | | |
| Capacity | | |

[6]

QUESTION 4

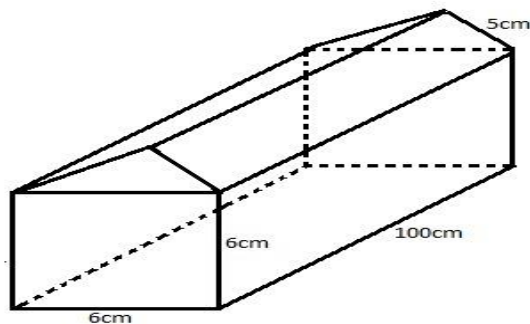
Complete the table below. Draw the table in your answer sheet.

| | | |
|---------------|----------------------|---------------------|
| m |cm |mm |
| 4121306 mm |m |km |
| 62415g |kg |tonnes |
| 60000 minutes |hr |seconds |
| 3.50l |cm ³ |m ³ |

[10]

QUESTION 5

- Draw the net of the polyhedron below (2)
- Find the volume of the polyhedron in litres (8)

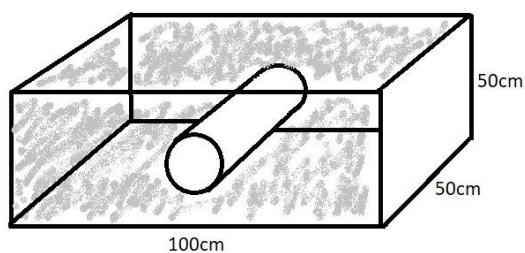


[10]

QUESTION 6

The figure below is that of a solid cuboid with a cylinder of radius 14 cm cut out of it.

- Find the volume of the cuboid in litres (4)
- If the cost manufacturing 1 litre of the cuboid is \$ 6.20, how much would it cost in Rands to manufacture 10 blocks if the exchange rate is \$1 = R14.20 (8)



[12]

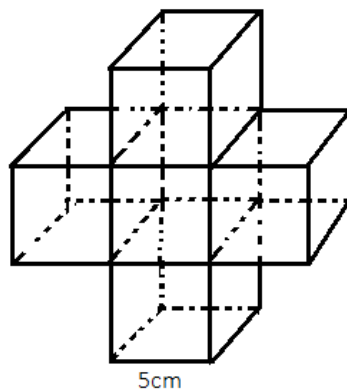
QUESTION 7

- i. A runner covers a distance of 70 km in 5 hr 20 minute what was her average speed? (3)
- ii. Find the time in minutes it takes a car travelling at 170km/hr to cover a distance of 2550 km. (3)

[6]

QUESTION 8

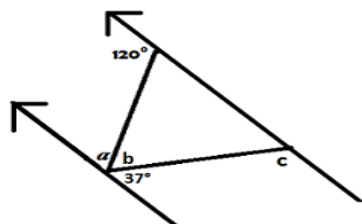
- i. A plane leaves Luanda for Addis Ababa at 18.30 on Tuesday, if Luanda is 6 hour behind Addis Ababa at what time and day does the plane arrive in Addis Ababa if the flight was 8.30 hr long and had a 2.30 hr stop in Nairobi? (3)
- ii. If a regular decagonal field is fenced with a 2250 cm wire mesh, what is the length of each side in metres? (3)
- iii. a. Explain to the class how many cubes make up the bronze metal cross below. (1)
b. If each cube weighs 2500 grams, what is the tonnage of the cross? (4)
c. What is the volume of the cross? (4)



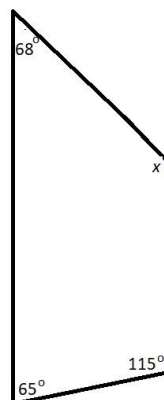
[15]

QUESTION 9

9.1 Find the values of **a**, **b**, **c** and **x** in i and ii below



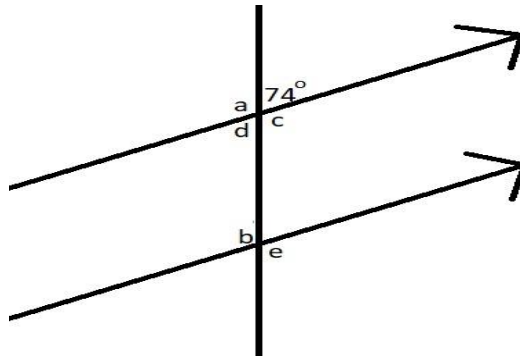
i.



(3) ii

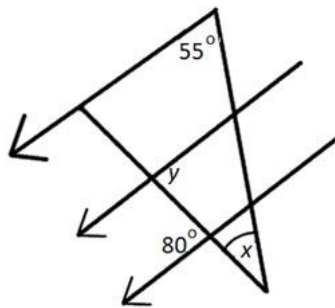
(2)

9.2 Find the values of angles marked: *a*, *b*, *c*, *d* and *e*



(4)

9.3 Find the size of the angles marked *x* and *y* in the diagram below:



(2)

9.4. If the **sum of the interior angles** of a regular shape is 2160, how many sides has it got?
(3)

[14]

TOTAL: 100

END OF EXAMINATION