DIVINE EDUCATION CENTRE

**BEGINNING OF TERM 1 EXAMINATION 2024**

MATHEMATICS – P.6

***Time Allowed: 2hrs 30min***

**Name:……………………………………………………………………………………**

**Stream: ……………………………………….**

|  |  |  |
| --- | --- | --- |
| **FOR EXAMINER’S USE ONLY** | | |
| **Qn. No** | **MARK** | **SIGN** |
| **1 – 10** |  |  |
| **11 – 20** |  |  |
| **21 – 22** |  |  |
| **23 – 24** |  |  |
| **25 - 26** |  |  |
| **27- 28** |  |  |
| **29 - 30** |  |  |
| **31 – 32** |  |  |
| **TOTAL** |  |  |

**Read the following instructions carefully:**

1. The paper has **two** sections: **A** and **B**
2. Section **A** has 20 short questions (40 marks)
3. Section **B** has 12 questions (60 marks)
4. Answer **ALL** questions. All answers to both Sections **A**

and **B** must be written in the spaces provided.

1. All answers must be written using a blue or black ball

point pen or ink. Diagrams should be drawn in pencil.

1. Unnecessary alteration of work may lead to loss of marks.
2. Any handwriting that cannot be easily read may lead to

loss of marks.

1. Do **not** fill anything in the boxes indicated for Examiner’s

use only.

***Turn over***

**SECTION A: 40 MARKS**

*Answer* ***all*** *questions in this section.*

*Questions* ***1*** *to* ***20*** *carry two marks each*

1. Workout: 54 – 23
2. Simplify: 3a – 2b + 2a – b
3. Write 12012 in words.

………………………………………………………………………………………………………………..

………………………………………………………………………………………………………………..

1. Given that A = {a, b, c, d, e} and B = {a, f, g, d}

Find n(A ∩ B)

1. Find the next number in the sequence;

2, 4, 7, 12, 19, \_\_\_\_\_\_\_\_\_\_

1. Use a dial to work out: 3 + 4(mod 5)
2. Find the value of m in the figure.

2m

300

1. The cost of 3 rubbers is 6000. Find the cost of a half dozens of similar rubbers.
2. Add: 3 2 3 five

+ 1 4 five

1. Without using a pair of compasses, draw an angle of 600 in the space below.
2. Round off 659 to the nearest tens.
3. Draw a clock face and show 25 minutes past 8 o’clock.
4. Express 0.42kg as grammes.
5. Subtract

1. Solve for p: 3p – 2 = 16
2. How many half litre cups of water can be got from a 5 litre jerrycan?
3. Find the smallest number of apples which can be shared among 12 boys or 18 girls and leaves no apple remaining.
4. Workout the range of -4, 3, 2 and -3
5. Find the square of 16.
6. The area of a rectangular piece of paper is 42cm2. If its width is 6cm, find its length.

**SECTION B: 60 MARKS**

1. Given that F = {a, b, c, d, e, f} and G = {b, c, d, k, m}
2. Represent the two sets on the venn diagram below. ***(03marks)***

F G

1. Find n(G – F) ***(02marks)***
2. Given the three cards 4 0 and 6
3. Write down all the 3-digit numerals that can be formed using all the above cards. ***(02marks)***
4. Write the largest and smallest 3-digit numbers formed in question 22(a) above. ***(01mark@)***
5. Find the sum of the largest and the smallest 3-digit number formed. ***(01mark)***
6. Given that a =3, b = a + 1 and c = a + 2. Find the value of;
7. 3a + c ***(02marks)***
8. cb – a2 ***(03marks)***
9. Find the value of the angles marked h and y in the figures below.
10. ***(02marks@)***

540

2h



2y 3y

1. In a class of 32 pupils of the pupils are in boarding section and the rest are in day section.
2. How many pupils are in day section? ***(03marks)***
3. How many more pupils are in day section than in boarding section?

***(02marks)***

1. (a) A taxi covered a distance of 180km in 3 hours. Calculate the speed the taxi was using. ***(02marks)***
2. Change 150 minutes into hours. ***(02marks)***

1. A business man bought 5 trays of 30 eggs at sh. 9000 each tray. He sold all the eggs at sh. 500 each. Calculate the profit he made after selling all the eggs.

***(05marks)***

1. Use the number line below to answer the questions that follow.

q

p



r

1. Name the integers represented by
2. q (ii) p = (iii) r =
3. Write down the mathematical sentence for the above number line.

***(02marks)***

1. (a) Solve for k: 5 – k = 2 ***(02marks)***

(b)A father is 22 years older than his son. The sum of their age is 52. How old is the father? ***(04marks)***

1. Mary went to the supermarket with sh.60,000 and bought the following items.

|  |  |  |  |
| --- | --- | --- | --- |
| Items | Quantity | Unit cost | Amount |
| Rice | 1 ½ kg | Sh.\_\_\_\_\_\_\_\_\_\_\_ | Sh. 5,250 |
| Beans | 3kg | Sh.2,400 | Sh\_\_\_\_\_\_\_\_\_\_\_ |
| Cooking oil | \_\_\_\_\_\_\_\_\_litres | Sh.9,000 | Sh. 36,000 |
|  | | | sh.\_\_\_\_\_\_\_\_\_\_\_ |

1. Complete the above table. ***(04marks)***
2. Find her change after buying all the items. ***(02marks)***
3. Below is a cuboid.
4. Find the area of the shaded region. ***(02marks)***

5cm

3cm

10cm

1. Calculate the volume of the cuboid above. (03marks)
2. Using a pair of compasses, ruler and a pencil only,
3. Construct a square PQRS where PQ= QR = 5cm ***(04marks)***
4. Measure diagonal PR = \_\_\_\_\_\_\_\_\_\_cm ***(01mark)***

**END**