****

**ASBAT EXAMINATIONS BOARD**

**SPECIAL MOCK EXAMINATION**

**2024**

MATHEMATICS

***Time allowed: 2hours 30 minutes***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Random No.** | | | | | | **Personal No.** | | |
|  |  |  |  |  |  |  |  |  |

**Candidate’s Name: ………………………………………………………….**

**Candidate’s Signature: ……………………………………………………**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

**District ID No.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Read the following instructions carefully:**   1. Do not write your **school** or **district name** anywhere on   this paper.   1. This paper has two sections: **A** and **B**. Section **A** has **20**   **questions** and **section B** has **12 questions** .This paper  has **16 pages** printed altogether.   1. Answer **all** questions. All the working for both sections   **A** and **B** must be shown in the spaces provided.   1. **All** working **must** be done using a **blue** or **black** ball   point pen or ink. Any work done in pencil other than  graphs and diagrams will **not** be marked.   1. **No calculators** are allowed in the examination room. 2. Unnecessary **changes** in your work and handwriting   that cannot be easily read may lead to **loss of marks.**   1. Do not fill anything in the table indicated **“For Examiners’ use only”** and the boxes inside the question paper. | |  |  |  | | --- | --- | --- | | **FOR EXAMINERS’**  **USE ONLY** | | | | **Qn. No.** | **MARKS** | **EXR’S**  **No.** | | **1- 5** |  |  | | **6 -10** |  |  | | **11- 15** |  |  | | **16 – 20** |  |  | | **21 – 22** |  |  | | **23 – 24** |  |  | | **25 – 26** |  |  | | **27 – 28** |  |  | | **29 – 30** |  |  | | **31 – 32** |  |  | | **TOTAL** |  |  | |

***©2024 ASBAT Examinations Board* Turn Over**

**SECTION A (40 MARKS)**

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

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

1. Find the product of 23 and 3.
2. Set K = {composite numbers less than 10}. How many subsets are in set K?
3. The bus fare from Kampala to Iganga was reduced by 10% and it became sh. 13,500. What was the bus fare before the reduction?
4. Find the next number in the sequence:

4, 5, 9, 18, 34, \_\_\_\_\_\_\_

1. What number was expressed in standard form as

4.6 x 10-2?

1. The length of all the edges of a cube is 60metres. Find the measurement of each side of the cube.
2. Using a sharp pencil, a ruler and a pair of compasses only, construct an angle of 600.
3. The cost of 4 mangoes is sh. 1,000. How many mangoes can one buy with sh. 2,250 from the same place?
4. A fifty-minute lesson ended at 12:30p.m. At what time did the lesson begin?
5. The average mass of 11 pupils is 35kg. Find the total mass of the pupils.
6. How many posts of 2 metres apart are needed to erect a circular hut of diameter 28 metres? (Use: π = )

1. Simplify: 9 – 3(p – 2)
2. Represent 3 x -2 on the number line below.

-7 -6 -5 -4 -3 -2 -1 0 1 2 3

1. Find the value of r in degrees in the figure below.

3r

2r + 200

1. Use distributive property to work out:

(55 x 17) – (17 x 45)

1. A regular polygon has 7 triangles. Name the polygon.
2. If g = 12.4 and k = 3.6

Evaluate k + g

1. Write “ One hundred forty six” in Roman numerals.
2. After covering of the journey, a cyclist had 14km left to complete the journey. How long was the whole journey?
3. Workout: 2 – 5= (mod 7)

**SECTION B (60MARKS)**

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

*Marks for each question are indicated in brackets.*

1. In the venn diagram below ,40 children like Mathematics (M) and some like Science (S) as shown on the venn diagram.

n(∑)

n(M) = 40 n(S)

2d+10 d 3d - 5

1. Find the value of d ***(2marks)***
2. Find the probability of picking a child who likes only Science.

***(3marks)***

1. With the help of a pair of compasses, a ruler and a sharp pencil only,

(a) construct a trapezium ABCD where line AB = 8cm, Line BC =AD= 4.5cm and angle DAB = angle ABC = 600

***(4 marks)***

(b)Measure line DC **(1mark)**

1. The table below shows marks scored by pupils of P.7 Green.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Marks | 75 | 80 | 60 | 50 | 70 |
| No. of pupils | 2 | 3 | 3 | 5 | 2 |

1. How many pupils did the exam? ***( 2 marks)***
2. Find the modal frequency ***(1 mark)***
3. Calculate the average mark. ***( 2 marks)***
4. Below is the exchange rate of a forex bureau.

1US dollar ($) = Ugsh. 3,850

1 British Pound (£) = Ugsh. 4,900

1 Kenya shilling (Ksh) = Ugsh. 35

1. How much in Uganda shillings can George get from £ 320? ***(2marks)***
2. Cruz bought a radio at Ksh. 4,400. What is the cost of the same radio in US dollars? ***(3marks)***
3. Figure XYZ is an isosceles triangle. Use it to answer the questions.

Z

(3h-2)mm (h+8)mm

X 24mm Y

1. Find the value of h. ***(2marks)***
2. Workout the area of the triangle XYZ. ***(3marks)***
3. The pie chart below shows how Rehema spends her monthly salary.

fees feeding

2n

800

600 rent

clothing

1. Find the value of n. ***(2marks)***
2. If she spend sh. 420,000 on clothing and rent, find her monthly salary. ***(2marks)***
3. Express the sector for clothing as a fraction in its simplest form.

***(1mark)***

1. On a poultry farm, there are 24% more hens than cocks.
2. Find the percentage of cocks on the farm. ***(2marks)***
3. There are 310 hens on the farm. How many chickens are on the farm altogether? ***(3marks)***
4. The venn diagram below shows the prime factors of M and R.

PFM PFR

k 32

51

21 33

1. The LCM of M and R is 270. Find the value of k. ***(2 marks)***
2. Calculate the value of R. ***(2marks)***
3. Find the GCF of M and R ***(1mark)***

1. Mukisa left town C at 8:00am and reached town D at 10:20a.m travelling at a speed of 60km/hr. He rested at D for 40 minutes before continuing to town E at a speed of 80km/hr for 2 hours.
2. Find the distance from C to E ***(3marks)***
3. Work out the average speed for the entire journey. ***(2marks)***
4. (a) Solve: 2 + 3p = 11 ***(2marks)***

(b) Peter is 54 years old while Mary is 12 years old now. In how many years’ time will Peter be thrice as old as Mary? ***(3marks)***

1. The mean of four consecutive odd numbers is 36. If the first number is m;
2. Find the value of m ***(3marks)***
3. Write the largest number in Roman numerals ***(2marks)***
4. (a) Simplify: 6.2 – 9.4 + 7 ***(2marks)***

(b) A cigarette company packs 20 sticks in a packet, 12 packets in a carton and 8 cartons in a box. How many sticks of cigarettes are in 5 such boxes?

***(3 marks)***

**END**