QUEST BUREAU EXAMINATIONS BOARD

**P. 7 MOCK EXAMINATIONS 2024**

**Mathematics**

# Time allowed 2hrs:30mins

NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## SCHOOL:

## Read the following instructions carefully:

1. **This paper is made up of section A and B.**
2. **Section A has 20 short answer questions (40 marks).**
3. **Section B has 12 questions (60 marks).**
4. **All answers to both section A and B must be**

**written in the spaces provided.**

1. **All answers must be written in blue ink and diagrams should be drawn in pencil.**
2. **Any handwriting that cannot easily be read will lead to loss of marks.**
3. **Unnecessary alteration of work may lead to loss of marks.**
4. **No calculators are allowed in the examination room.**

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| **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** |  |  |

**SECTION A:40 MARKS**

# Questions 1 to 20 carry two marks each

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| 1. | Add: 363 + 37 | 2. | Simplify: 3k – 2y – k + 4y |
| 3. | Arrange -4, 3, 0, -2, 1 in ascending order. | 4. | Find the LCM of 9 and 12. |
| 5. | The area of a triangle is 36m2. If its base is 6m, find its height. | 6. | What number has been expanded to give (5x102) + (4x100) + (7x10-2)? |
| 7. | Convert 1101two to base ten. | 8. | 2/3 of Oumar’s salary is sh.600,00. Find his total salary. |
| 9. | Round off 79.63 to the nearest whole number. | 10. | If a = -6 and b = 5, find the value of a2 + b |

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| 11. | Using a pair of compasses, ruler and a pencil, construct an angle of 1200. | 12. | Solve: 9 – 3y = 30 |
| 13. | What is 25% of 1800 mangoes? | 14. | Find the sum of the next two numbers in the sequence;  2, 3, 5, 7, , |
| 15. | Write XLIX in words. | 16. | The cost of 3 books is sh.2400. what is the cost of 10 similar books? |
| 17. | If a = 7, find the value of a2 + a | 18. | Work out: 2 – 3 = (mod 6) |
| 19. | Using distributive property, work out: (34 x 8) + (66 x 8) | 20. | How many elements are in a set with 127 proper subsets? |

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| **SECTION B: (60 MARKS)** | | | |
| 21. | 1. Simplify: 2/3 – ¼ + 1/3 (2mks) 2. Work out: 0.12 x 0.8 (3mks)   0.2 x 0.4 | 22. | Ruth went shopping and bought the following items.  2kg of meat at sh.8000 @kg  1 ½ kg of sugar at sh.4000 per kg 3 bars of soap at sh.2200 each bar   1. What was her expenditure? (4mks) 2. If she remained with sh.1400, how much did she have before? (1mk) |
| 23. | In Trust Primary School, there are 420 pupils and of these, 3/7 are boys.   1. What fraction are girls? (2mks) 2. How many more girls are there in the school than boys? (3mks) | | |

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| 24. | Study the Venn diagram below and answer the questions that follow.  Fx F30  21  22 w  51   1. Find the GCF of x and 30. (2mks) 2. Work out the LCM of x and 30. (3mks) |
| 25. | Joan scored as follows: 40, 70, 50, 82, 48, 70   1. Work out the median mark. (2mks) 2. Calculate the mean mark. (3mks) |
| 26. | Study the number line below and answer the questions that follow;  a b  -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7  c  a) Identify the integers represented by letter;  i) a |

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|  | 1. b 2. c   b) Write the mathematical statement shown on the above number line. (1mk) |
| 27. | The figure below is a rectangle. Use it to answer questions that follow.  (3p – 3)cm  (p+1)cm  (2p + 7)cm   1. Solve for p. (2mks) 2. Calculate the area of the figure above. (3mks) |
| 28. | In a class of 80 pupils, 37 like maths (M), 31 like English (E), 8 pupils like both subjects and 2y pupils like any of the two.   1. Complete the Venn diagram below using the above information. (3mks)   n(∑) = 80  n(M) = n(E) =  2y  (3mks) |

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|  | 1. Find the value of y. |
| 29. | Opolot shared sh.120,000 among his three children Tim, Tam and Tom in the ratio of 3:5:4 respectively.   1. How much money did each get? (4mks) 2. How much more money did Tam get than Tim? (1mk) |
| 30. | 1. Using a ruler, a pencil and a pair of compasses, construct a regular quadrilateral ABCD in a circle of radius 4cm. (4mks) |

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|  | b) Measure line AB (1mk) |
| 31. | 1. A man bought 25 apples at sh.800 each. At what price must he sell each apple to realize a 20% again? (4mks) 2. Express 22½% as a decimal (1mk) |
| 32. | A tank was 2/3 full of water. When ¼ of the water in the tank was drawn, 2,500 litres remained. Find the capacity of the tank when full. (5mks) |

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|  | **End** |