**NAME………………………………………………………………ADM. NO………………CLASS………**

**MWAKICAN JOINT EXAMINATION (MJET)**

**MATHEMATICS FORM 1**

**END OF TERM 1 2019**

**Time: 2hrs**

**Instructions to candidate**

1. Write your name and Adm. No in the space provided.
2. These papers consist of two sections; Section A and section B.
3. Answer all questions in section A and section B.
4. Write all your working on the space provided.
5. Marks are awarded for steps which are correctly worked.
6. Calculators must not be used.

Section I

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | Total |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

 Section II

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 17 | 18 | 19 | 20 | 21 | Total |
|  |  |  |  |  |  |

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|  |

 Grand Total

**SECTION A 50 MARKS**

**ANSWER ALL QUESTIONS IN THIS SECTION**

1. Express 846298 in words and state the place value and total value of 4 (3mks)
2. The sum of three consecutive odd integers is 573. Find the integers (3mks)
3. By striding 60cm or by striding 64cm John takes an exact number of steps to cross a road. Find the least width of the road in metres. (3 marks)
4. Find the G.C.D of 21x3, 35x2 and 28x (3 marks)
5. Evaluate and leave your answer in power form (4 marks)

14702

7056

1. Kamau withdrew money from a bank. He spent 3/8 of the money to pay for Fatuma’s school fees and 2/5 to pay for Kimani’s school fees. If he remained with ksh. 12,330, calculate the amount of money he paid for Kimani’s school fees. (4 marks)

1. Evaluate (3 marks)

(-2)(5+3) -9÷3+5

(-3) x (-5) + (-2)x4

1. Without using a calculator evaluate: (3 marks)

 3/5 of 60 – 22/3 x 11/2

5 5/8 x 1 7/9 – 5/4 of 4 4/5  + 2 4/5  ÷ 7/10

6x-3xy

 2x

1. given that x= 4 and y= -6 evaluate the following (3 marks)
2. Traffic lights at three different junctions show green light at intervals of 10 seconds, 12 seconds and 15 seconds. They all show green light at 1.00pm. At what time will they all again show green light together? (3 marks)

1. Arrange the following numbers in an ascending order. (3marks)

12/5 , 31/4 , 2 , 17/9

0.522

1. Express the following as fractions in their lowest forms (3 marks)
2. Express the following numbers in standard form (3 marks)
3. 57600
4. 0.00000198
5. 290.64
6. Show how the following additions can be done using a number line and give the results (3 marks)
7. (-7) + (-2) +(6)
8. (-1)+(-7) + 0
9. (+6)+(+2) +(6)
10. The G.C.D of three numbers is 30 and their L.C.M is 900. Two of the numbers are 60 and 150. What are the other possible numbers? (3 marks)
11. Which of the following numbers are divisible by 10 and 11? (3 marks)

2530, 5170, 60750, 10230, 10780

**SECTION B 50 MARKS**

**ANSWER ALL QUESTIONS IN THIS SECTION**

1. At Mugi Academy the lessons start at 8.10Am. Each lesson lasts for 35minutes. The students learn two lessons then they go for 10 minutes break then another two lessons and goes for a tea break which lasts for 20 minutes. The students learn two lessons before going for lunch. The lunch break takes 1 hour 10 minutes. In the afternoon the students learn three lessons.
2. At what time do the students go for short break? (2mks)
3. At what time do the students break for tea break? (2mks)
4. When does the 6th lesson start? (2mks)
5. When does lunch break end? (2mks)
6. When do the lessons end? (2mks)
7. A minibus had 23 passengers at the beginning of a journey. Twelve passengers alighted at the first stop while 9 boarded six of those who boarded at the first stop alighted at the second stop and 12 got in. The minibus should not stop again up to the final destination. The charges from the starting point were sh. 50 up to the first stop, sh. 70 up to the second stop and sh. 85 up to the final destination.

 a) How many passengers alighted at the final destination? (3 marks)

 b) How many passengers were ferried by the minibus through the journey? (3 marks)

 c) How much money was collected during the trip? (4 marks)

1. a) Arrange the following decimals in ascending order (3mks)

 0.08, 0.82, 0.081, 1.8, 1.2

 b) Which of the following numbers : 28/99, 32/9, 12/19, 23/5  are (3mks)

1. Terminating?
2. Non-terminating and recurring?
3. Non-terminating and non-recurring?

 c) . Round off the following numbers correct to the decimal places indicated in the brackets

1. O.5389 (2d.p) (1mk)
2. 1.8024 (3d.p) (1mk)

d) In the number 38.167, calculate the sum of the total values of digits 8 and 6 (2mks)

1. a) A number n is such that when it is divided by 27,30 or 45, the remainder is 3. Find the smallest possible value of n. (3 marks)

b) The cost of three blouses is 1650 shillings. The cost of 9 trousers is ksh 1800. If Njoroge bought 10 blouses and 50 trousers determine the total money he used and write in words (4 marks)

c) A farmer decided to cover his house using square tiles. If his house is a rectangle of sides 128m by 84m, find the area of each of the largest tiles which can be used to fit exactly without breaking. (3mks)

1. A man spent 1/9 of his salary on food and ¼ of the remainder on electricity and water bills. He paid fees with 20% of his salary and invested 16% of what was left on business. After taking a game drive on which he spent ksh 2,000, he saved ksh 5350. Calculate his total monthly earnings. (10 marks)