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| C:\Users\Ayham\Desktop\Untitled-1.jpg | **Saudi Electronic University** | |
| **Final Examination**  Date: 28.12.2014 | **Fundamentals of Mathematics**  **MATH 001** |
| **Student Name (ARABIC):**  **Student ID:**  **Instructions:**  This exam duration is **2 hours.**  This is NOT an open book exam.  The use of calculators is permitted.  The use of mobile phones is NOT permitted.  Please answer all the **5** questions.  The number of pages is **8 pages** including this page.    **Marking Scheme:**   |  |  |  |  | | --- | --- | --- | --- | | **Question** | | **Score** |  | | 1 | (30 Marks) |  | | 2 | (4 Marks) |  | | 3 | (4 Marks) |  | | 4 | (4 Marks) |  | | 5 | (8 Marks) |  | **Signature** | | **TOTAL** | |  |  | | |

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| **Question 1:** (30 points)  Choose the correct answer, write your answer in the table below: | | | |
| 1. The translation of “35 less than d” is: | | | |
| 1. 35-d | 1. 35-d | 1. 35d | 1. 35+d |
| 1. The solution of is: | | | |
|  |  |  |  |
| 1. The slope of the line  is: | | | |
| 1. 9 | 1. -9 | 1. 20 | 1. 0 |
| 1. The product of the **slopes** of two perpendicular lines is: | | | |
| 1. 0 | 1. 1 | 1. -1 | 1. -2 |
| 1. The Linear function whose graph has the slope **8**and y-intercept , is: | | | |
|  |  |  |  |
| 1. The degree of polynomial | | | |
| 1. 3 | 1. 5 | 1. 9 | 1. -10 |
| 1. The simplification of | | | |
| 1. 2 | 1. 4 |  | 1. 8 |
| 1. The scientific notation of the number is: | | | |
|  |  |  |  |
| 1. The domain of the function : | | | |
|  |  |  |  |
| 1. The intercepts of the equation is: | | | |
|  |  |  |  |
| 1. The value of when  is: | | | |
| 1. 16 | 1. 14 | 1. 6 | 1. 4 |
| 1. The simplification of is: | | | |
| 1. -8 | 1. 8 | 1. 7 | 1. -7 |
| 1. The domain of the function is: | | | |
|  | |  | |
|  | |  | |
| 1. The solution of is: | | | |
| 1. 8 | 1. 8,-8 | 1. -8 | 1. No Solution |
| 1. The result of the division is: | | | |
|  |  |  |  |
| 1. The solution of is: | | | |
|  |  |  |  |
| 1. Which of the following correspondences is not function: | | | |
| |  |  | | --- | --- | | Domain | Range | | 2 | 6 | | 3 | 5 | | 4 |  | | | |  |  | | --- | --- | | Domain | Range | | -1 |  | | 0 | 2 | | 1 |  | | |
| |  |  | | --- | --- | | Domain | Range | | 7 | 0 | | 8 | 1 | | 9 | 2 | | | |  |  | | --- | --- | | Domain | Range | | -5 | 0 | | 0 | 1 | | 5 |  | | |
| 1. The Greatest Common Factor of and is: | | | |
|  |  |  |  |
| 1. The interval notation for the set is: | | | |
|  |  |  |  |
| 1. The result of addition is **:** | | | |
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| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Answer |  |  |  |  |  |  |  |  |  |  |
| Question | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Answer |  |  |  |  |  |  |  |  |  |  |

**Question 2:** ( 4 points)

Perform and Simplify the following:

**Question 3:** (4 points)

Solve the following equations:

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| **Question 4:** (4 points)  Solve the following inequalities: |

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| **Question 5:** (8 points) |

1. Solve graphically the system and then classify the system as consistent or inconsistent and the equations as dependent or independent.
2. Solve the following system of equations: