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| C:\Users\Ayham\Desktop\Untitled-1.jpg | | | **Saudi Electronic University** | | | | | | | |
| **Final Examination (Alternative)**  Date: 25.05.2014 | | | **Fundamentals of Mathematics**  **MATH 001** | | | | |
| **Student Name (ARABIC):**  **Student ID:**  **Instructor Name: CRN :**  **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 | (6 Marks) |  | | 4 | (6 Marks) |  | | 5 | (4 Marks) |  | **Signature** | | **TOTAL** | |  |  | | | | | | | | |
| **Question 1:** (30 points)  Choose the correct answer, write your answer in the table below: | | | | | | | | | | |
| 1. The degree of the polynomial  is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. " Twice a number increased by five " is translated to: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The  **intercept** for the line is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The simplification of  is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The equation of the line whose slope is and containing the point is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The solution set for the equation  is : | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The first coordinate is always negative in quadrants: | | | | | | | | | | |
| 1. I and II | | | 1. II and III | | | 1. I and IV | | | | 1. III and IV |
| 1. The simplification of  is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The set of numbers for which the rational expression  is not defined is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The result of  is **:** | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The factorization of  is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The Greatest Common Factor (*GCF*) of  and  is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The domain of the function  is: | | | | | | | | | | |
|  | | | | | |  | | | | |
|  | | | | | |  | | | | |
| 1. The interval notation for the set is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The result of the division  is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The result of the multiplication  is: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. If , then is equal to: | | | | | | | | | | |
|  | | |  | | |  | | | |  |
| 1. The set is called the set of : | | | | | | | | | | |
| 1. Integers | | 1. Whole numbers | | | 1. Natural numbers | | | 1. Rational numbers | | |
| 1. The simplification of  is: | | | | | | | | | | |
|  | | |  | | |  | | |  | |

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| 1. The equation illustrated by this graph 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 |  |  |  |  |  |  |  |  |  |  |

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| **Question 2:** ( 4 points) |

Perform and simplify the following:

1. 
2. 

|  |
| --- |
| **Question 3:** (6 points) |

Solve the following equations:

1. 
2. 

|  |
| --- |
| **Question 4:** (6 points)  Solve the following inequalities: |

1. 
2. 

|  |
| --- |
| **Question 5:** (4 points) |

Solve the system 