**King Saud University Math 106**

**Science and Medical Studies Section for girls Second Term 1430H**

**College of Science First Midterm Exam**

**Department of Mathematics 105 Minutes**

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| **Name:** | | | **Student No.:** | | |
| **Section No.:** | | | **Teachers name:** | | |
|  | | | | | |
| **Question No.** | **I** | **II** | **III** | **IV** | **Total** |
| **Mark** |  |  |  |  |  |
| **QUESTION I** | | | | | |
| a. Find the value of  that satisfies the Mean Value Theorem for  on the interval . | | | | | |
|  | | | | | |
| b. Find  for the function . | | | | | |
| **QUESTION II** | | | | | |
| a. Find  where . | | | | | |
|  | | | | | |
| b. Use the properties of the integral to prove the following inequality without actually evaluating the integrals, | | | | | |
| **QUESTION III** | | | | | |
| Compute using Riemann sums and right end points? | | | | | |
| **QUESTION IV**  **Evaluate the following integrals** | | | | | |
| a. . | | | | | |
|  | | | | | |
| b. . | | | | | |
|  | | | | | |
| c. . | | | | | |
|  | | | | | |
| d. . | | | | | |

GOOD LUCK ☺