Department of Mathematics

College of Sciences

King Saud University

Math 111

1st midterm examination

Seconed semester, 1430H

Time: 105 Minutes

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| **Name:**  **ID: Section:** |
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| **Q1. (a).** If is continuous on and is any antiderivative of  show that . |
|  |
| **(b).** Find |
| **Q2. (a).** Find the value of *c* that satisfies the Integral Mean Value Theorem for the function  on . |
|  |
| **(b).**Without evaluating the integral, prove that |
|  |
| **Q3. (a).** Evaluateusing Riemann sum and right end points. |
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| **(b).** Compute Trapezoidal rule approximation with n=10, for . |
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| **Q4.** Evaluate the following integrals:  **(i)**.  **(ii).**  **(iii).** |