Department of Mathematics

College of Sciences

King Saud University

Math 111

1st midterm examination

Seconed semester, 1430H

Time: 105 Minutes

|  |
| --- |
| **Name:****ID: Section:** |
|  |
| **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. |
|  |
| **(b).** Compute Trapezoidal rule approximation with n=10, for . |
|  |
| **Q4.** Evaluate the following integrals:**(i)**. **(ii).****(iii).**  |