KFUPM--Term 181

Math 201 Quiz # 5(a) Time: 30 minutes Date: 29-11-2018

Name	ID #	Sr #	Sec. 09	Marks(15):-

Q 1. Estimate the volume of the solid that lies below the surface $z = xy$ and above the rectangle $\{(x, y): 0 \le x \le 6, 0 \le y \le 4\ \}$. Use a Riemann sum with $m = 3, n = 2$ and take the sample point to be the upper right corner of each rectangle.

Q 2. Evaluate $\int_0^1 \int_0^1 \frac{y}{1+xy}\, dx\, dy$.

Q 3. Evaluate $\int_0^1 \int_{x^2}^1 \sqrt{y}\, \sin y\, dy\, dx$ by reversing the order of integration.

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Math 201 Quiz # 5(b) Time: 30 minutes Date: 29-11-2018

Name	ID #	Sr #	Sec. 09	Marks(15):-

Q 1. Estimate the volume of the solid that lies below the surface $z = xy$ and above the rectangle

$\{(x, y): 0 \le x \le 6, 0 \le y \le 4\ \}$.

Use a Riemann sum with $m = 3, n = 2$ and take the sample point to be midpoints of each rectangle.

Q 2. Evaluate $\int_{-1}^{1}\int_{0}^{\pi}\ xy\cos y\ \ dydx$.

Q 3. Evaluate $\int_{0}^{1}\int_{\sqrt{x}}^{1}\sqrt{y^3+1}\ dy\ dx$ by reversing the order of integration.

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Math 201 Quiz # 5(c) Time: 30 minutes Date: 29-11-2018

Name	ID #	Sr #	Sec. 13	Marks(15):-

Q 1. Estimate the value of $\iint_R (1 - xy^2)\, dA$ where $R = [0,4] \times [-1,2]$.

Use a Riemann sum with $m = 2, n = 3$ and take the sample point to be the lower right corners of the rectangle.

Q 2. Sketch the region of integration and evaluate the integral

$$\int_0^1 \int_0^1 \frac{y}{x^2y^2+1}\, dx\, dy.$$

Q 3. Evaluate $\int_0^2 \int_{\frac{y}{2}}^1 y \cos(x^3 - 1)\, dx\, dy$ by reversing the order of integration.

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Math 201 Quiz # 5(d) Time: 30 minutes Date: 29-11-2018

Name	ID #	Sr #	Sec. 13	Marks(15):-

Q 1. Estimate the value of $\iint_R (1 - xy^2)\, dA$ where $R = [0,4] \times [-1,2]$.

Use a Riemann sum with $m = 2, n = 3$ and take the sample point to be the upper left corners of the rectangles.

Q 2. Evaluate $\int_0^2 \int_0^1 xye^{xy^2}\, dy\, dx$.

Q 3. Evaluate $\int_0^4 \int_{\sqrt{x}}^2 \frac{1}{y^3+1}\, dy\, dx$ by reversing the order of integration.