Math 201-111 Quiz 5 (B)

Name:.....ID#:.....Sec:.....Ser:.....

Q.1: Evaluate the double integral $\int\int_D x\sqrt{y^2 - x^2}dA$,

where $D = \{(x, y) \mid 0 \leq y \leq 1, 0 \leq x \leq y\}$

Q.2: Use double integrals to find volume of a solid under the paraboloid $z = 3x^2 + y^2$ and above the region bounded by $y = x$ and $x = y^2 - y$.

Q.3: Evaluate the double integral $\int\int_R 5e^{-x^2-y^2}dA$, where R is the region bounded by the the semi circle $x = \sqrt{9-y^2}$ and the $y - axis$.

Q.4: Use double integrals to find volume of a solid under the paraboloid $z = 27 - 3x^2 - 3y^2$ and above the $xy - plane$.