KFUPM Term (141) Name_____Serial#_____

MATH 201 Quiz # 5(a) ID#_____ Section 27

Time: 20 Minutes Marks : /8

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1) Suppose $I = \iint_R (x + y)dA$ where R is the region bounded by the circle $x^2 + y^2 = 2y$. Convert I to polar coordinates **(Do not evaluate the resulting integral).**

2) Evaluate $\iiint_E 2xdV$ where $E = \{(x, y, z): 0 \leq y \leq 2, 0 \leq x \leq \sqrt{4 - y^2}, 0 \leq z \leq y\}$.

KFUPM Term (141) Name_____Serial#_____

MATH 201 Quiz # 5(b) ID#_____ Section 27

Time: 20 Minutes Marks: /8

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1) Use polar coordinates to find volume of the solid bounded by the cylinder $x^2 + y^2 = 4$ and the planes $z = 0$ and $y + z = 3$.

2) Set up a triple integral using $dzdydx$ as order of integration to find volume of the solid bounded by the surface $y = x^2$ and planes $y + z = 9$ and $z = 0$.