Math 102 Quiz 2 (a) ID# ____ Sec.# ___ Serial# ____

Q1. The area of the region enclosed by the curves $y = \sin x$, $y = \cos x$, $x = 0$ and $x = \pi$ is

(a) $2\sqrt{2} - 1$

(b) $2\sqrt{2} + 1$

(c) $\sqrt{2} + 2$

(d) $2\sqrt{2}$

(e) $-\sqrt{2}$

Q2. The volume of the solid generated by rotating the region enclosed by the curves $y = x^4$ and $y = 1$ about the line $y = 2$ is

(a) 12

(b) $4\pi - 11$

(c) $\frac{2}{7}$

(d) $\frac{208\pi}{45}$

(e) $\frac{204\pi}{31}$

Math 102 Quiz 2 (b) ID#—— Sec#—— Serial#——

Q1. Area of the region bounded by the graphs of equations $x = y^2$ and $2y^2 = x + 4$ is

(a) 12

(b) $\pi - \sqrt{3}$

(c) $\frac{32}{3}$

(d) $2\pi + 8$

(e) $\frac{\pi}{2}$

Q2. The volume of the solid obtained by rotating the region bounded by the curves

$y = \sqrt{x-1}$, $y = 0$ and $x = 5$

about x-axis is equal to

(a) 10π

(b) 4π

(c) 6π

(d) 8π

(e) 2π

Math 102 Quiz 2(C) ID# ____ Sec. # ____ Serial # ____

Q1. The area of the region bounded by the graphs of $y = x^2 - 2$ and $y = x$ is

(a) $\frac{11}{2}$

(b) $\frac{3}{2}$

(c) $\frac{7}{2}$

(d) $\frac{5}{2}$

(e) $\frac{9}{2}$

Q2. The volume of the solid generated by rotating the region enclosed by the curves $y = x$ and $y = \sqrt{x}$ about the y-axis is

(a) $\pi \int_0^1 (y - y^2)\, dy$

(b) $\pi \int_0^1 (y^2 - y^4)\, dy$

(c) $\pi \int_0^1 (x^2 - x)\, dx$

(d) $\pi \int_{-1}^1 (y + y^2)\, dy$

(e) $\pi \int_{-1}^0 (x - x^2)\, dx$

Math 102 Quiz 2 (d) ID# ____ Sec# ____ Serial# ____

Q1. Area of the region bounded by the graphs of the curves $y = 6 - x^2$ and $y = -2x + 3$ is

(a) $\frac{32}{3}$

(b) 12

(c) 1

(d) 2π

(e) $\sqrt{3}$

Q.2. Volume of the solid generated when region $y = \sqrt{x}$, $x = 4$, $y = 0$ is revolved about y-axis is

(a) $\sqrt{2}\,\pi$

(b) 9

(c) $\frac{128\pi}{5}$

(d) 12

(e) $\frac{142\pi}{7}$