7/8

CALCULUS II

QUIZ 2 B 3RD PARTIAL

Name Hannia Larissa Gómez Wolfskill ID A01570193 DATE: April/26/2018

~~14~~

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question. (12.5 pts each one)

Evaluate the integral.

$+ \mid 4x \mid e^x$
$- \mid 4 \mid e^x$
$+ \mid 0 \mid e^x$

1) $\int 4xe^x\, dx$ 1) A

A) $4xe^x - 4e^x + C$ B) $xe^x - 4e^x + C$ C) $4e^x - e^x + C$ D) $4e^x - 4xe^x + C$

2) $\int e^{5x} \cos 4x\, dx$ 2) NO SOLUTION

A) $\frac{e^{5x}}{2}[\sin 4x + \cos 4x] + C$ B) $\frac{1}{41}[4e^{5x}\sin 4x + 5\cos 4x] + C$

NO SOLUTION

C) $\frac{e^{5x}}{41}[4\sin 4x + 5\cos 4x] + C$ D) $\frac{e^{5x}}{41}[4\sin 4x - 5\cos 4x] + C$

$u = \ln(24x)$ $dv = 2x - 1$

$du = \frac{1}{x}$ $v = x^2 - x$

3) $\int (2x-1)\ln(24x)\, dx$ 3) A

$-\int (x^2 - x)\left(\frac{1}{x}\right)$

A) $(x^2 - x)\ln 24x - \frac{x^2}{2} + x + C$ B) $(x^2 - x)\ln 24x - \frac{x^2}{2} + 2x + C$

C) $\left(\frac{x^2}{2} - x\right)\ln 24x - \frac{x^2}{4} + x + C$ D) $(x^2 - x)\ln 24x - x^2 + x + C$

$+ \mid 23x \mid \cos(\tfrac{1}{2}x)$
$- \mid 23 \mid 2\sin(\tfrac{1}{2}x)$
$+ \mid 0 \mid -4(\cos(\tfrac{1}{2}x))$

4) $\int 23x \cos \frac{1}{2}x\, dx$ 4) B

A) $23x \sin\left(\frac{1}{2}\right)x - 46\cos\left(\frac{1}{2}\right)x + C$ B) $46x \sin\left(\frac{1}{2}\right)x + 92\cos\left(\frac{1}{2}\right)x + C$

C) $92 \sin\left(\frac{1}{2}\right)x - 46x\cos\left(\frac{1}{2}\right)x + C$ D) $23 \sin\left(\frac{1}{2}\right)x + 46x\cos\left(\frac{1}{2}\right)x + C$

5) $\int e^{2x} x^2\, dx$ 5) B

A) $(1/2)x^2e^{2x} - (1/4)xe^{2x} + (1/4)e^{2x} + C$ B) $(1/2)x^2e^{2x} - (1/2)xe^{2x} + (1/4)e^{2x} + C$

C) $(1/2)x^2e^{2x} - (1/2)xe^{2x} + C$ D) $(1/2)x^2e^{2x} - xe^{2x} + (1/4)e^{2x} + C$

$+ \mid x^2 \mid e^{2x}$
$- \mid 2x \mid \frac{1}{2}e^{2x}$
$+ \mid 2 \mid \frac{1}{4}e^{2x}$
$- \mid 0 \mid \frac{1}{8}e^{2x}$

$\frac{1}{2}x^2e^{2x} - \frac{x}{2}e^{2x}$

Orlando Mortimer Boone Mtz.