

KFUPM--Term 182

Math 102

Quiz # 2(a)

Time: 25 minutes

Date: 4-3-2019

Name	ID #	Sr #	Sec. 42	Marks(out of 14):-
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Q1. Find the average value of $f(x) = t e^{-t^2}$ over the interval $[0, 5]$.

Q2. Evaluate the integral $I = \int \frac{x e^{2x}}{(1+2x)^2} dx$ using integration by parts.

Q3. Evaluate the integral $I = \int \sqrt{\cos x} \sin^3 x dx$.

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Quiz # 2(b)

Time: 25 minutes Date: 4-3-2019

Name	ID #	Sr #	Sec. 42	Marks(out of 14):-
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Q 1. Find the average value of $f(x) = \cos^4 x \sin x$ over the interval $[0, \pi]$.

Q2. Evaluate the integral $I = \int x^4 \ln x \, dx$ using integration by parts.

Q3. Evaluate the integral $I = \int \tan^3 x \sec^6 x \, dx$.

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Quiz # 2(c)

Time: 25 minutes

Date: Date: 4-3-2019

Name	ID #	Sr #	Sec. 25	Marks(out of 14):-
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Q1. Find the average value of $f(x) = 2 \sin x - \sin 2x$ over the interval $[0, \pi]$.

Q2. Evaluate $I = \int_1^5 \frac{x}{e^x} dx$ using integration by parts.

Q3. Evaluate the integral $I = \int_0^{\pi/2} \cos 5x \cos 10x dx$.

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Quiz # 2(d)

Time: 25 minutes

Date: 4-3-2019

Name	ID #	Sr #	Sec. 25	Marks(out of 14):-
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Q 1. Find the average value of $f(x) = \cos^4 x \sin x$ over the interval $[0, \pi]$.

Q2. Evaluate $I = \int \cos^{-1} x \, dx$ using integration by parts.

Q3. Evaluate the integral $I = \int_0^{\pi/6} \sqrt{1 + \cos 2x} \, dx$.