KFUPM – Department of Mathematics and Statistics – Term 161 **MATH 102**

QUIZ # 6 Code 1 (Duration = 20 minutes)

NAME:	ID:	_ Section:
Exercise 1 (4 points) Find the radius	and the interval of convergence of the power series	$\sum_{n=1}^{\infty} \frac{(x+2)^n}{n3^n}$

Exercise 2 (3 points)

Find the sum of the series $\sum_{n=0}^{\infty} \frac{(-\pi^2)^n}{(2n+1)(16)^n}.$

Exercise 3 (3points)

Find the coefficient of x^3 in the MacLaurin series of the function $f(x) = (\sin x) Ln(1+x)$

KFUPM – Department of Mathematics and Statistics – Term 161 MATH 102 QUIZ # 6 Code 2 (Duration = 20 minutes)

NAME:	ID:	Section:
Exercise 1 (4 points) Find the radius	and the interval of convergence of the power se	eries $\sum_{n=1}^{\infty} \frac{(x+1)^n}{(n+1)2^n}$
Exercise 2 (3points) Find the sum of	of the series $\sum_{n=0}^{\infty} \frac{(-\pi^2)^n}{(2n+1)!4^n}$.	
	n-0 ()	

Exercise 3 (3points)

Find the coefficient of x^3 in the MacLaurin series of the function $f(x) = (\sin x)\cos x$

KFUPM – Department of Mathematics and Statistics – Term 161 MATH 102 QUIZ # 6 Code 3 (Duration = 20 minutes)

NAME:	ID:	Section:
Exercise 1 (4 points)		
Find the radius and the interval of	f convergence of the power series $\sum_{n=1}^{\infty} \frac{(x)^n}{n!}$	$\frac{(n-1)^n}{n2^n}$
Exercise 2 (3 points) Find the sum	of the series $\sum_{n=0}^{\infty} \frac{(-4)^n (\pi^2)^n}{(2n)!}.$	
Evareisa3 (3noints) Find the coef	fficient of x^3 in the MacLaurin series of t	the function
$f(x) = (\sin x) \tan^{-1} x$	Holent of A in the MacLaurin series of t	ne function

KFUPM – Department of Mathematics and Statistics – Term 161 MATH 102 QUIZ # 6 Code 4 (Duration = 20 minutes)

NAME:	_ ID:	Section:
Exercise 1 (4 points) Find the radius and the interval of	f convergence of the power series	$\sum_{n=1}^{\infty} \frac{(x+5)^n}{(n+1)2^n}$
Exercise 2 (3 points) Find the sum of the series $\sum_{n=1}^{\infty} \frac{(-2n)^n}{n^n}$	$\frac{2)^n}{3^n}$.	

Exercise 3 (3points)

Exercise 3 (3points)
Find the coefficient of x^3 in the MacLaurin series of the function $f(x) = e^{x+1} \cos x$