AIN SHAMS UNIVERSITY FACULTY OF ENGINEERING

SPECIALIZED ENGINEERING PROGRAMS Communication Junior



Spring 2022	Quiz- 1 [Model – B]	Time Allowed: 20 min
PHM 212s: Special Functions [5 Marks]		
Name:	ID:	G: S:

Question 1:

Evaluate the following integral in terms of Gamma function.

$$\int_{-\infty}^{\infty} \frac{1}{(4+x^4)^3} \ dx$$

[2 marks]

Question 2:

Find a series solution for the following D.E in the power of \boldsymbol{x} .

$$(2x^2+1)y''+6xy'+2y=0$$

[3 marks]