AIN SHAMS UNIVERSITY FACULTY OF ENGINEERING

SPECIALIZED ENGINEERING PROGRAMS Communication Junior



Spring 2022	Quiz- 1 [Model – A]	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.

$$\int_{0}^{\pi/2} \left(\cot^{5}\theta + \cot^{7}\theta \right) e^{-\cot^{2}\theta} d\theta$$

[2 marks]

Question 2:

Find a series solution for the following D.E in the power of x.

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

[3 marks]