AIN SHAMS UNIVERSITY FACULTY OF ENGINEERING

SPECIALIZED ENGINEERING PROGRAMS

Communication Junior



Spring 2021	Quiz- 1	Time Allowed: 20 min.	
	PHM 212s: Special Functions	[5 Marks]	
Name:		ıD·	G. S.

Question 1:

Evaluate the following integral in terms of Gamma function.

$$\int_{0}^{\pi/2} \left(\csc^4 x - \csc^3 x \right)^{1/6} \cos x \, dx$$

[2 marks]

Question 2: (*Please start the solution in the Back of the paper*)
Find a series solution for the following D.E. in powers of x.

$$(3-x^2)y'' - xy' + 4y = 0$$

[3 marks]

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