Test 2 Version A (10:10 am – 12:00 pm) – SOLUTIONS

A1. [**2 marks**] Write a possible value of b for which the following integral will be an **improper integral**. If there is no such value, write "Not possible".

$$\int_2^5 \frac{1}{x-b}dx$$

Solution: b can be any number between 2 and 5, including but not limited to 2, 2.1, 3, 4.5, and 5.

A2. [**2 marks**] If it converges, evaluate $\int_1^\infty xe^{-x^2}dx$ and write its value in the box below. If the integral does not converge, write "does not converge".