East West University
Department of Mathematical and Physical Sciences
Quiz-1, Spring 2022
Course Title: Differential Equations and Special Functions
Course Code: MAT102   **Section: 1**
Course Instructor: Dr. Anindita Paul

Topic: Solution of First order ODE (Linear Differential Equation)

Total: 10   **Time: 15 minutes**

1. Find the explicit solution of the initial-value problem: $x\frac{dy}{dx} + 6xy = 4x^2 e^{-8x}$; $y(0) = \frac{1}{2}$.