Discrete Assignment EE:1205 Signals and Systems

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I. Question GATE AG 14

 $y = e^{mx} + e^{-mx}$ is the solution of which differential equation? 1. $\frac{dy}{dx} - my = 0$ 2. $\frac{dy}{dx} + my = 0$ 3. $\frac{d^2y}{dx^2} + m^2y = 0$ 4. $\frac{d^2y}{dx^2} - m^2y = 0$

1.
$$\frac{dy}{dx} - my = 0$$

2.
$$\frac{dy}{dx} + my = 0$$

3.
$$\frac{d^2y}{dx^2} + m^2y = 0$$

4.
$$\frac{d^2y}{dx^2} - m^2y = 0$$