

1. Solve the second order ordinary differential equation below.

$$\frac{d^2y}{dx^2} - 4\frac{dy}{dx} + 13y = 0$$

[4 Marks]

2. Given the second order Ordinary Differential Equation

$$\frac{d^2y}{dx^2} - \frac{dy}{dx} - 12y = e^{4x}$$

- (i) Find the complementary function, y_c
- (ii) Form matrix equations/ simultaneous equations.
- (iii) Find the Wronskian.

[6 Marks]