Name:

ID:

Serial No.:

1. Find the general solution of the DE

$$y^{''} - 5y^{'} + 6y = e^{2x} + 3x$$

2. Determine the form of a particular solution of

$$y'' + 9y = x\sin 3x$$

3. Determine the general solution to

$$y'' + 4y = \cot 2x$$