

King Fahd University of Petroleum and Minerals
Department of Mathematics & Statistics

Math - 202 Semester - 062 Quiz # III

Name:

S. No.:

ID:

Maximum Marks: 10

Section:

Time Allowed: 20 Minutes

NOTE: Give the solution of any TWO questions.

1. If $y_1 = x^2$ is a solution of $x^2y'' - 3xy' + 4y = 0$, then find the general solution of the ODE on the interval $(0, \infty)$. (5 Marks)
2. Find the general solution of $y''' + 4y'' - 5y' = 0$. (5 Marks)
3. Write $y''' + 4y'' + 3y' = x^2 \cos x - 3x$ in operator form annihilated ODE. (5 Marks)

Solution.