Name:_____ Lecturer _____

Lecture Section: _____

Ma 221 Exam IB 09S

I pledge my honor that I have abided by the Stevens Honor System._____

You may not use a calculator, **cell phone**, **or computer while taking this exam**. **All work must be shown to obtain full credit**. **Credit will not be given for work not reasonably supported**. **When you finish**, **be sure to sign the pledge**.

Score on Problem #1 _____

#2 _____

#3 _____

#4 _____

Total Score _____

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Solve:

1 [25 **pts**.]

$$\left(ye^{xy} - \frac{2}{y}\right)dx + \left(xe^{xy} + \frac{2x}{y^2} + y^3\right)dy = 0, \;\; y(1) = 1$$

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2 [25 **pts**.]

$$ty' + 3y = t^2 - t + 2 \quad y(1) = \frac{2}{3}$$

.

3 [25 **points**]

$$y' + 4y^5 = 6x^2y^5 \quad y(0) = 1$$

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4 [25 **pts**.]

$$y' + xy = xe^{-2x^2}y^{-5}$$