



Kingdom of Saudi Arabia
King Abdulaziz University

Faculty of Science –Mathematics Department
Second Mid-Term Exam (90 Minutes) - (204 Math).
16/1/1433 H – 11/12/2011 A.D. First Semester
1432-1433 H

Model A

Name:	Section:
Student's I.N. :	Serial Number:

Q_1	Q_2	Q_3	Q_4	Q_5	Total Marks (25)

- 2 A culture initially has P_0 number of bacteria. At $t = 1$ hours the number of bacteria is measured to be $\frac{3}{2}P_0$. If the rate of growth is proportional to the number of bacteria $P(t)$ present at time t , determine the time necessary for the number of bacteria to triple. **[4 Marks]**

3 Solve $y'' - 4y = 3 \sin 2x$

[5 Marks]

4 Solve $y'' + y = \sec x$

[5 Marks]

5 Solve $x^2y'' - 4xy' + 6y = \ln x^2$

[5 Marks]