Kingdom of Saudi Arabia
King Abdulaziz University

Faculty of Science –Mathematics Department
Second Mid-Term Exam (90 Minutes)
(204 Math)
27/6/1435 H – 27/4/2014 A.D.
Second Semester
1434-1435 H

Model : B

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

Q_1	Q_2	Q_3	Q_4	Q_5	Total Marks (30)

(Answer the following questions)

1	Determine the form of a particular solution of $$y'' + y' - 2y = (x - 11)e^{-2x}$$	[4 Marks]

2	Show that the set of the functions $\cos x$, 1, $\sin x$ is linear independent.	[3 Marks]

| 3 | Solve $y'' - 3y' + 2y = 10 \sin x$ | [7 Marks] |

4	Solve	$x^2 y'' + xy' - y = \dfrac{1}{x^{-1}+1}$	[8 Marks]

5	Solve $x + Dy = t,$ $-Dx + y = t$	[8 Marks]