

King Fahd University of Petroleum & Minerals

Department of Mathematical Sciences

Math553 “Homological Algebra”

Semester 062 (Spring 2007)

Dr. Jawad Y. Abuihlail

Second Take Home Exam (Due: 9.06.2007, 1:00 p.m.)

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**Remarks:**

1. All questions are from the textbook “M. Osborne, *Basic Homological Algebra*, Springer (2000)”.
2. Give self-contained proofs and arguments.

Solve 10 questions from the following list, (including Exercise 5.4 and at least 5 questions that are marked with “\*”):

| Chapter | Questions                    |
|---------|------------------------------|
| 4       | 1*, 4*, 5, 6*, 7, 8*, 9*, 11 |
|         | 12*, 14, 15*, 16, 17         |
| 5       | 1, 2, 4, 6, 7, 8*, 9*        |

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## Grades

| #   | Chapter | Question     | Grade/20 |
|-----|---------|--------------|----------|
| 1.  |         |              |          |
| 2.  |         |              |          |
| 3.  |         |              |          |
| 4.  |         |              |          |
| 5.  |         |              |          |
| 6.  |         |              |          |
| 7.  |         |              |          |
| 8.  |         |              |          |
| 9.  |         |              |          |
| 10. |         |              |          |
|     |         | <b>TOTAL</b> |          |