Part III Algebraic Geometry

<u>Notes on the exam</u>

The example sheet for the course necessarily included some theory, and some harder problems that would not be appropriate for a timed exam. Additionally, since this is the first time this instructor is giving this course, there is not a standard bank of many years of questions compatible with the material that the instructor has presented. The following questions on the example sheet are representative of typical exam questions, although all the definitions and concepts introduced in the lectures, example sheets, and examples classes are fair game. The Hartshorne exercises below are also representative, with a shadow on "too hard".

Example Sheet I: The complete sheet
Example Sheet II: 1–3, 7–11
Example Sheet III: 1–3, 6,7
Example Sheet IV: 1–3, 8, 10, 11

In addition, the follow exercises in Hartshorne Chapter II provide good practice:

Section 1: 1.3, 1.14, 1.15, 1.19, 1.21
Section 2: 2.32.10, 2.18
Section 3: 3.2, 3.9, 3.10, 3.16
Section 4: 4.1, 4.7, 4.12
Section 5: 5.6, 5.8, 5.11, 5.18
Section 6: 6.1, 6.2, 6.10, 6.12

Essentially, if you can complete all these exercises, are familiar with all the basic concepts and definitions, and have a good bank of examples in mind for these concepts then you will be well-prepared for the exam.