

MA342R, Annual Examination 2017 - Guidance for Candidates

Lest there be any ambiguity, the numbers of subsections and theorems relate to the notes, not the beamer lecture slides. (Nevertheless it is expected that numbering in the notes and the beamer slides is consistent.)

Section 1

The following subsections contain examinable material: 1.11, 1.16, 1.24, 1.25, 1.26.

Much of the rest of the module assumes basic knowledge of topological spaces, Hausdorff spaces, product topologies, compactness and connectedness. These concepts, though not directly examined, find their way into many proofs in subsequent sections of the notes.

Section 2

This section is examinable.

Section 3

This section is examinable.

Section 4

This section is examinable, with the exception of the the following two items:

- the example immediately preceding Proposition 4.1 (concerning the map $p: \tilde{Z} \rightarrow Z$, where $Z = \mathbb{C} \setminus \{1, -1\}$ and \tilde{Z} is the set of points (z, w) of \mathbb{C}^2 for which $w \neq 0$ and $w^2 = z^2 - 1$;
- the proof of the Homotopy-Lifting Theorem (Theorem 4.6).

Section 5

This section is examinable.

Section 6

The following subsection contains examinable material: 6.5.

(The concept of a simplicial complex, developed in earlier subsections, is relevant to understanding subsection 6.5, but the material of subsections 6.1–6.4 is not directly examinable.)