MAT3 MATHEMATICAL TRIPOS Part III

Monday 16 June 2025 $-9{:}00~\mathrm{am}$ to 12:00 pm

PAPER 167

INTRODUCTION TO GEOMETRIC REPRESENTATION THEORY

Before you begin please read these instructions carefully

Candidates have THREE HOURS to complete the written examination.

Attempt **ALL** questions. There are **FOUR** questions in total. The questions carry equal weight.

All algebraic varieties are defined over an algebraically closed field k of characteristic $p, p \ge 0$.

STATIONERY REQUIREMENTS

Cover sheet Treasury tag Script paper Rough paper

SPECIAL REQUIREMENTS None

You may not start to read the questions printed on the subsequent pages until instructed to do so by the Invigilator.