

**CHEMICAL ENGINEERING TRIPOS PART I**  
**Course 2020-21 and Examination 2021**

The examination papers are described below. Each paper will be of three hours' duration.

- Paper 1**     *Answer all questions.*  
Section A will contain one question on Fluid Mechanics  
Section B will contain two questions on Heat and Mass Transfer (Fundamentals & Operations)  
Section C will contain one question on Homogeneous Reactors  
Section D will contain one question on Biotechnology
- Paper 2**     *Answer all questions.*  
Section A will contain two questions on Process Calculations  
Section B will contain two questions on Separations: Equilibrium Staged Processes  
Section C will contain one question on Introductory Chemical Engineering
- Paper 3(1)** *Answer all questions.*  
Section A will contain one question on Stress Analysis and Pressure Vessels  
Section B will contain two questions on Engineering Mathematics  
Section C will contain two questions on Mechanical Engineering – this includes Structures, Mechanical Properties of Materials and Dynamics
- Paper 3(2)** *Answer all questions.*  
Section A will contain one question on Stress Analysis and Pressure Vessels  
Section B will contain two questions on Engineering Mathematics  
Section C will contain two questions on Introductory Chemistry

Candidates will be provided with the *Chemical Engineering Tripos Data Book* for all papers.

Each question will be marked out of 20. The approximate number of marks allocated to each part of a question will be indicated on the examination papers.

The Examiners require candidates for Paper 3(1) to demonstrate proficiency in Engineering Drawing and candidates for Paper 3(2) to demonstrate proficiency in the Physical Chemical Laboratory. All candidates must show proficiency in Computing Skills and attend Professional Skills seminars.

The normal allocation of marks is 100 marks for each Paper, 75 marks for the Chemical Engineering Laboratory, and 75 marks for the Exercises.

**R. L. Tuley**

Secretary of the Chemical Engineering and Biotechnology Syndicate  
1 October 2020