

**CHEMICAL ENGINEERING TRIPOS PART IIA**  
**Course 2017-18 and Examination 2018**

The examination papers are described below. Each examination will be of three hours' duration. Candidates will be allowed 10 minutes of reading time at the start of each examination.

All the questions will carry equal marks. The approximate number of marks allocated to each part of a question will be indicated on the examination papers. The rubric for each paper is shown in italics.

**Paper 1** *Answer five questions in all. Answer at least two questions from Section A, and at least two questions from Section B.*

Section A will contain four questions on Fluid Mechanics.

Section B will contain three questions on Equilibrium Thermodynamics.

**Paper 2** *Answer five questions in all. Answer at least one question from Section A, at least one question from Section B, and at least one question from Section C.*

Section A will contain three questions on Separations.

Section B will contain three questions on Heterogeneous Reactors.

Section C will contain two questions on Bioprocessing.

**Paper 3** *Answer five questions in all. Answer at least one question from Section A, at least one question from Section B, and at least one question from Section C.*

Section A will contain three questions on Process Dynamics and Control.

Section B will contain two questions on Corrosion and Materials.

Section C will contain two questions on Safety, Health and Environment.

**Paper 4** *Answer all questions.*

The paper will contain one question on each of the following topics:

Radiative Heat Transfer

Particle Processing

Process Synthesis

Partial Differential Equations

Statistics

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

All candidates are required to attend the classes on Engineering Ethics and complete the set work to the satisfaction of the Examiners.

The normal allocation of marks is 100 marks for each Paper, 140 marks for the Design Project, and 60 marks for the Exercises.

**P. J. Barrie**

Secretary of the Chemical Engineering and Biotechnology Syndicate

17 October 2017