

COMPUTER SCIENCE TRIPOS Part IA – 2026 – Paper 2

5 Software and Security Engineering (rkh23)

- (a) (i) Explain what is meant by IaaS, SaaS and PaaS, giving a real world example of each. [6 marks]
- (ii) Explain how a startup would typically use these technologies as they grow. [3 marks]
- (b) (i) Define the roles of a Software Engineer (SWE) and a Technical Programme Manager (TPM). Identify two similarities between these roles. [4 marks]
- (ii) Explain how Requirements Modelling can help resolve conflicts between stakeholders in the early stages of a project. Identify the role that would lead this process. [3 marks]
- (c) A team uses an AI-assisted coding tool to generate a high-performance data-processing module for their PaaS-hosted application. The generated code uses an undocumented API of the underlying platform to bypass certain latency bottlenecks. Critique this approach and discuss any precautions they should take. [4 marks]