

Two hours - online

EXAM PAPER MUST NOT BE REMOVED FROM THE EXAM ROOM

**UNIVERSITY OF MANCHESTER  
DEPARTMENT OF COMPUTER SCIENCE**

Software Engineering Concepts in Practice

Date: Wednesday 22nd January 2020

Time: 14:00 - 16:00

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**This is an online examination. Please answer ALL Questions  
The examination is worth a total of 40 marks**

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This is a CLOSED book examination

The use of electronic calculators is NOT permitted

**Question 1 to Question 25 contain restricted multiple choice questions (MCQs) and are NOT published.**

26. In under 500 words, discuss the implications of the fact that *the design (of software) is a wicked problem on the staging of various project activities (e.g., problem definition, requirements gathering, architecture, construction, etc.)*. Concrete examples are encouraged.

(5 marks)

27. In under 500 words describe which actions we do NOT perform during refactoring and why. (5 marks)

28. In under 500 words describe the steps of the debug cycle. (5 marks)