



the
UNIVERSITY
of
GREENWICH

EXAMINATION PAPER:	ACADEMIC SESSION 2005 / 2006
Campus	Avery Hill
School	Architecture and Construction
Title of Programme	BSc /BA (Hons) Real Estate BSc /BA (Hons) Construction Business Management
Level	Undergraduate
Academic Stage of the Course	1
TITLE OF PAPER	TECHNOLOGY II : CONSTRUCTION
COURSE CODE	BUIL1027
Date and Time	Thursday 4th May 2006, start 9.30 am
Duration:	2 hours

Answer THREE questions.

Candidates must comply with the 'Instructions to Candidates' printed on the examination answer book.

1. A low-rise housing developer is at the preliminary stages of investigating the feasibility of redeveloping a former industrial site close to the River Thames that falls within the Thames Gateway redevelopment area. The developer is aware that soil conditions can have a huge influence on the profitability of a scheme.

Advise the developer of an appropriate process of site investigation that will provide information on soil conditions, allow the preliminary design of foundations and allow assessment of any specialist physical investigation works that may be required.

(33 marks)

2. A five storey commercial building with a framed superstructure is proposed for a redevelopment site. The building will not have a basement. A preliminary site investigation has revealed soil conditions to be approximately two metres of imported fill over relatively soft clay that has a low bearing capacity.

Based upon knowledge of the above conditions propose a suitable form of foundation for the building.

(33 marks)

3. Using sketches to illustrate your answer, compare and contrast the different methods used to integrate the structure and services of medium and high rise framed buildings.

(33 marks)

4. Compare and contrast the advantages and disadvantages of *two* alternative materials commonly used for the construction of multi storey building frames.

(33 marks)

5. Using sketches to illustrate your answer explain the ways in which various building forms resist wind load.

(33 marks)