

**UNIVERSITY OF SOUTH AUSTRALIA
SCHOOL OF GEOINFORMATICS, PLANNING & BUILDING**

**PROGRAM(S): Bachelor of Construction Management & Economics/
Diploma in Built Environment**

COURSE: CONSTRUCTION 1 (10270)

EXAMINATION: Internal Exam, Semester 1, 2003

**DURATION: 3 Hours of Exam time preceded by 10 minutes of Reading
time, a total of 3 Hrs 10 Mins.
For ENTEXT students 10 minutes of Reading time plus 3.5
Hours of Exam time, a total of 3 Hrs 40 Mins.**

EXAMINER: Sam Baroudi, Tel 22234

INSTRUCTIONS TO CANDIDATES:

- This exam is worth 50% of the total course marks
 - Attempt to answer five (5) questions only. You may illustrate your answer with carefully drawn sketch details, suitably annotated.
 - All questions are of equal value
 - No reference materials are allowed.
 - State any assumptions made
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NOTES FROM EXAMINER:

Question 1**(20 Marks)**

- a. List three professionals in the building industry and explain their respective roles.
- b. List what items we should make note of when making an initial site investigation.
- c. Explain the difference between Planning Approval and Building Approval.
- d. Explain what you would find in an engineer's footing report.

Question 2**(20 Marks)**

- a. What is soil testing and why is it so important prior to starting the house design?
- b. What do you understand by the term "cut and fill" in relation to earthworks and how is it achieved? Use a diagram to illustrate.
- c. Briefly explain the steps in constructing a concrete raft slab.
- d. Discuss the essential elements of timber floor construction.

Question 3**(20 Marks)**

- a. What is brick veneer construction and why has it become the preferred method of wall construction in Australia's domestic housing?
- b. What is the difference between standard bricks and modular bricks?
- c. Explain the following terms involved in brickwork and why they are necessary in good construction. 1) Brick ties 2) Lintels 3) Damp proof courses.
- d. Steel framed walls and roofs are increasingly being used for domestic framework. Explain why this is so by referring to its construction and its advantages.

Question 4**(20 Marks)**

- a. What is a truss roof indicating the various members that are typically involved in their construction and the advantages of this system?
- b. What is a conventional roof indicating the various members that are typically involved in their construction and the advantages of this system?
- c. Compare metal roofing construction to that of tiled roofing.
- d. What do you understand about the need for stormwater drains.?

Question 5**(20 Marks)**

- a. Explain what you understand by plasterboard applications in building and elaborate on their construction.
- b. What are the following items and indicate their purposes : 1) cornices, 2) ceiling roses,
3) ceiling joists.
- c. What is cement fibre board, where would you find it in domestic construction and why would it be used there?
- d. Name five trades you would consider to be described as finishing trades indicating why you have selected them as such.

Question 6**(20 Marks)**

Discuss only four (4) of the following issues in relation to building services. Questions are of equal value and clearly indicate which ones have been answered.

- a. Why do plumbers and electricians need to be licensed?
- b. What are waste drains and where would they be found?
- c. List four items that should be considered when selecting a hot water service.
- d. What is an electrical meter box and what sorts of things would you find in there?
- e. If in plumbing works the supervisor refers to 1st fix as opposed to 2nd fix what would they be talking about? Note typical examples.
- e. List all the relevant service providers in regard to domestic services and their areas of responsibility.

END OF QUESTIONS