

國立中央大學97學年度碩士班考試入學試題卷

所別：營建管理研究所碩士班 不分組 科目：營建工程與管理 共 1 頁 第 1 頁

*請在試卷答案卷(卡)內作答

1. What are the typical sources for construction disputes and claims (name at least four)? And, what are the major methods to resolve them? Please describe and compare these methods. (10 points)
2. Please explain the concepts of "Public Construction Three-level Quality Management System." (5 points)
3. What is "Engineering Insurance"? What are the distinguishing features? Please name 3 of the commonly used engineering insurances in construction. (10 points)
4. Assume you work at the General Affairs Office of a senior high school. You are the only employee in the office with civil engineering background. The school is planning to build a new multi-purpose recreation center and you are assigned to lead the project. You are asked to answer the following questions:
 - a. Please describe the stages of life cycle for this project and explain the major tasks in each stage from the owner's point of view. (15 points)
 - b. Please provide a contracting strategy and justify your choice. (10 points)

5. 簡答題 (每題 6 分, 共 30 分)

- (1) 工程管理控制之意義為「靈活運用 5M, 透過適當的規劃及管理達成 5R 之目標」, 其中 5R 所指為何?
- (2) 排程過程中, 資源之應用與限制對排程的結果有甚大之影響。請說明「資源拉平 (Resource Leveling)」與「資源指派 (Resource Allocation)」主要之差異。
- (3) 試簡述六種營建工程施工中可能發生之公害。
- (4) 成本控制中, 何謂 "Cost Performance Index (CPI)" ? 如何判定此指標所代表之狀況?
- (5) 何謂 "獨立浮時 (Independent Float)" ? 試繪圖說明之。

6. 計算題 (20 分) :

已知網圖如下表, 請依作業項目 (1) 可中斷, (2) 不可中斷, 分別求出各作業項目之 ES, EF, LS, LF。

作業項目	工期(天)	後續作業, 邏輯關係, 遲延天數
A	5	B, FF, 6 C, SS, 2
B	3	E, SF, 7
C	3	D, SF, 7 E, FS, 2
D	6	-
E	5	-

參考用