

# 國立交通大學 98 學年度第 1 學期

## 博士班資格考筆試考試試題

土木工程學系 營管組      科目：施工性與營建企業智能      選考學生數：1      考試時間：60min

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Choose at least two of the following three questions (You may answer all of the three questions for bonus points):

1. (1) List three most commonly adopted modern approaches for developing construction business intelligence ; (2) Compare the advantages/disadvantages of those approaches.

ANS:

Approach	Advantages	Disadvantages
1.		
2.		
3.		

2. In the CII's Constructability Program, constructability concepts are important guideline for application of construction lessons-learned. Please list three constructability concepts (one for conceptual planning phase, one for design and procurement phase, and one for field operation phase) along with their real world examples.

Example:

Construction Phase	Constructability concept	Real world examples
1. Conceptual planning	Basic design approaches consider major construction methods	Adoption of Steel Structure system instead of Reinforcement System during basic design in order to shorten the construction duration.

ANS:

Construction Phase	Constructability concept	Real world examples
1. Conceptual planning		
2. Design and procurement		
3. Field operation		

3. List at least two published journal papers that describe constructability implementation approaches and comment their applicability to Taiwan's construction industry (Applicable or inapplicable, why?).