



CEX7109 - Management of the Design Phase & Quality Control

FINAL EXAMINATION - 2014/2015

Time Allowed: Three Hours

Date: 2015 - 09 - 12 (Saturday)

Time: 0930 - 1230 hrs

Answer four (4) questions, selecting at least one (1) question from section B.

Section A

Q1.

- (a). "Conceptual phase" is one of the core phases of design activity. Explain why it is very important citing examples from a building design project. (13 marks)
- (b). Various types of "information inputs" are required for the design activity model. Enumerate the required inputs and describe the function of each input. (12 marks)

Q2.

- (a). Clients "initial brief" should impart to the design team what the basic requirements of the client are. Discuss the possible contents of a clients brief for a "private hospital" project. (12 marks)
- (b). "At the commencement of a project decisions are more **open ended** and more **subjective** than at later phases". Discuss the influence of decisions taken at various stages of a design project on the project cost. (13 marks)

Q3.

- (a). What are the main objectives of cost planning? Discuss the two methods generally adopted for cost planning. (12 marks)
- (b). A "Consultancy Agreement" is an agreement between the Client and the Consulting Engineer for the provision of **Consultancy Services**. State why such agreements are necessary and briefly describe the contents of a typical consultancy agreement. (13 marks)

Q4.

- (a). **Registration** and **prequalification** are both used to select tenderers who would tender later when invited. Compare and contrast the two processes citing examples. (12 marks)
- (b). There are several factors to be considered in "evaluation" of a tender for a project. Discuss the criteria used in tender evaluation for typical government projects in Sri Lanka. (13 marks)



Section B

Q5.

- (a). Briefly describe the difference between 'quality control' and 'quality assurance' in construction work. (08 marks)
- (b). Obtaining ISO 9000 certification is a very important goal to be achieved by a construction company. Describe the benefits a company can enjoy by doing this. (09 marks)
- (c). **Quality system** of an organization should be properly documented and available to everybody in the organization. Enumerate and briefly describe the contents of ISO 9000 documentation. (08 marks)

Q6.

- (a). Discuss the importance of "controlling documents" by a construction company giving examples to illustrate what would happen if not practiced. (08 marks)
- (b). Briefly explain the purpose of 'Internal quality audits' in an ISO 9000 quality management system. (08 marks)
- (c). Identify the three site inspection and testing procedures used to control quality of construction works giving an example each in relation to use of concrete. (09 marks)

