
UNIVERSITI SAINS MALAYSIA

1st. Semester Examination
2003/2004 Academic Session

September / October 2003

EAA 483/2 – Construction Management

Duration : 3 hours

Instructions to candidates:

1. Ensure that this paper contains **THREE (3)** printed pages.
2. This paper contains **FIVE (5)** questions. Answer **ALL QUESTIONS.**
3. All questions carry the same mark.
4. All questions **MUST BE** answered in English.
5. Write answered question numbers on the cover sheet of the answer script.

1. (a) After tendering process has been finished, it is followed with a tender evaluation process. Explain the factors need to be taken into account during a tender evaluation process so that the contract work awarded will achieved its objective.

(8 marks)
- (b) Life cycle for a construction project consists of several specific phases for the project to be implemented efficiently. By sketching a bar chart for each phase, explain the activities involved in each phase.

(12 marks)
2. (a) One of the types of contracts used in a construction industry is a contract based on the bill of quantities. Briefly discuss on the advantages of this contract.

(4 marks)
- (b) During site meeting of a project, all the parties involved will be called to attend it. Briefly explain the items that are normally discuss in a site meeting.

(4 marks)
- (c) The program of works is normally prepared by the contractor and this requirement is expressed in the conditions of contract. This program has to be approved by the superintendent officer. Explain the important items need to be taken into account during the preparation of the program of works.

(6 marks)
- (d) Table 1.0 shows the activities that required to be implemented to construct a certain structure. With respect to Table 1.0, draw an appropriate arrow diagram.

Table 1.0

Activity	Predecessors	Followers
A	-	I
B	-	H
C	-	F
D	-	E
E	D	F
F	C,E	G
G	F	H
H	B,G	I
I	A,H	-

(6 marks)

3. (a) Table 2.0 shows the activities that have been identified for a project. Based on the information in Table 2.0, sketch a complete forward pass diagram with the early start for A, B and C equal to 1.

Table 2.0

Activity	Predecessors	Followers	Duration
A	-	D,E	3
B	-	G,H	2
C	-	F	1
D	A	I	4
E	A	G	4
F	C	H	3
G	B,E	J	5
H	B,F	-	5
I	D	-	1
J	G	-	2

(10 marks)

- (b) Describe **FIVE (5)** physical approaches which are required for safety and health in construction.

(10 marks)

4. (a) Describe what is value engineering (management) and explain its role in project management.

(5 marks)

- (b) Discuss the value engineering job plan develop by Dell' Isola.

(10 marks)

- (c) Explain the life-cycle costing and state it's important in value management.

(5 marks)

5. (a) Discuss the quality element which consists of: quality characteristic; design quality; and quality of conformance.

(10 marks)

- (b) Discuss the organizations involve in the quality assurance and explain the conflicting objectives and interests which may arise between the organizations.

(10 marks)