UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2012/2013

COURSE NAME	:	CONSTRUCTION ECONOMICS
COURSE CODE	:	BPD 4282
PROGRAMME	:	4 BPC
EXAMINATION DATE	:	JUNE 2013
DURATION	:	2HOURS
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

Q1 As a project manager, you have been asked to provide a preliminary estimate to your client in a housing project. Based on your knowledge, there are various kinds of preliminary cost estimation methods that can be used for this project.

Based on the above scenario:

(a) Explain THREE (3) methods that can be used to estimate the initial price for the housing project.

(15 marks)

(b) Analyze which method you consider to be most appropriate to give reasons for your choice.

(10 marks)

Q2 A school is going to be built in Kuala Selangor. As a financial estimator for the project, two alternative proposals have been suggested as shown in Table Q2.

Table Q2: Alternative Proposal

Scheme A	(RM)
Cost of building	200,000
Site cost	40,000
Annual running cost	6,000
Replacement cost at every 20 years	24,000
Replacement cost at every 30 years	32,000
Scheme B	(RM)
Cost of building	-30,000
Site cost	3,000,000
Annual running cost	5,000
Replacement cost at every 20 years	30,000
Replacement cost at every 30 years	6,000

(a) Calculate the above proposals with the assumption of both projects will have an equal life of 60 years and discount rate is 5%.

(20 marks)

(b) Select which scheme should be accepted.

(5 marks)

Q3 A site located at Cheras, Selangor is required for constructing a proposed development of offices. The information of the development project as follows:

Gross floor area 10,000m2
Circulation area 22% of gross floor area
Estimated rent RM60/m2
Capitalisation rates of rents 7%
All outgoings to be recovered by service charge.

Building contract details:
Period 18 months
Professional fees 15%
Short term finance 12%
Developer's profit 12% of gross development value
Land costs (including fees) RM100,000

(a) Calculate the amount allowed for the cost of the building based on the information provided.

(20 marks)

(b) As a developer, please describe how cost of the building influences the gross development value.

(5 marks)

Q4 A commercial building has provided a lift with a capacity of 20 people for the new 8-storey building with a life expectancy of 30 years. Some of the costs involved for the long life of the lift are as shown below:

The initial cost of the lift installation is RM42,000.

The running costs are made up of:

- Wiping down finishes 12 times a year at the rate of RM1.60,
- vacuuming the floor 100 times a year at the rate of RM0.12,
- replacing the carpet tile flooring and painting the lift car every 5 years at the rate of RM300,
- replacing the installation after 20 years at a cost of RM45,000 and
- allowing for a comprehensive maintenance contract at the rate of RM920 per. annum. (excluding the first year).

(a) Define the concept of Life Cycle Cost (LCC).

(5 marks)

(b) Calculate the Present Value (PV) of the Life Cycle Cost (LCC) for the lift installation at a compound rate of interest of 5%.

(20 marks)

-END OF QUESTION-