UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2012/2013

COURSE NAME	:	CONSTRUCTION ECONOMICS
COURSE CODE	:	BPD 4282/ BPD 42802
PROGRAMME	:	4 BPC
EXAMINATION DATE	:	DECEMBER 2012/JANUARY 2013
DURATION	:	2 HOURS
INSTRUCTION	:	1. ANSWER **ALL** QUESTIONS
		2. PLEASE RETURN THE QUESTION PAPER

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

Q1 Segment Village has planned a project to upgrade their main hall. As a community committee for the project, two alternative proposals have been suggested as shown in Table Q1:

Table Q1

Scheme A (Extension of the existing building with modifications to the old building)	(RM)
Proposed extension, including fees	1,750,000
Repairs and modifications	500,000
Major repairs every 15 years	200,000
General maintenance per annum	10,000
Redecoration every five years	50,000
Air-conditioning per annum	12,000
Lighting and cleaning per annum	6,000
Insurances per annum	1,000

Scheme B (Demolition and rebuilding)	(RM)
Demolition, sale of materials etc.	-30,000
Building and fees	3,000,000
General maintenance per annum	5,000
Redecoration every five years	30,000
Air-conditioning per annum	6,000
Lighting and cleaning per annum	3,600
Insurances per annum	3,000

Calculate the above proposals with the assumption of both projects will have an equal life of 60 years and discount rate is 8%.

(25 marks)

Q2 A site located at Puchong, Selangor is required for constructing 40 semi-detached houses. The information of the development project as follows:

The selling price of the houses is RM500,000.00/unit.
The cost of the land plus legal fees, is RM1,500,000.00.
The developer requires a profit of 20% of the gross development value (GDV).
The development project duration is 24 months.
Interest rate is 15%.
Legal, agent's and advertising fees are 5% of GDV.
Construction duration is 12 months.
Professional fees are 12%.
Yield 7%

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

(25 marks)

Q3 A hospital 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).

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

(25 marks)

Q4 A school will be built at the Kg Sky. As a project manager, you have been asked to provide a preliminary estimate to your client. Based on your knowledge, there are various kinds of preliminary cost estimation methods that can be used.

Based on the above scenario:

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

(15 marks)

(b) Analyze with reasons which method you consider to be most appropriate.

(10 marks)

- END OF QUESTION -