UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2016/2017

TERBUKA

COURSE NAME	:	CONSTRUCTION ECONOMICS
COURSE CODE	:	BPD 42802
PROGRAMME CODE	:	BPC
EXAMINATION DATE	:	DECEMBER 2016 / JANUARY 2017
DURATION	:	2 HOURS
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

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

Q1 A site located in Batu Pahat is required for constructing a proposed development of offices. The information on the development project are as follows:

- Gross floor area 10,000m^2
- Circulation area 22% of gross floor area
- Estimated rent RM60/m^2
- Capitalisation rates of rents 7%
- All outgoings to be recovered by service charge.
- 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) Determine the cost of the building based on the information provided.

(20 marks)

(b) Describe the influence of building cost on the gross development value.

(5 marks)

Q2 A school is going to be built in Parit Raja. 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	300,000
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 Life Cycle Cost (LCC) for Scheme A and Scheme B proposals with the assumption of an equal life of 60 years, interest rate is 5% and Annual Sinking Fund (ASF) is 2 ½%.

(20 marks)

(b) Determine which scheme should be accepted.

(5 marks)

Q3 Developers usually have some sense of the market when they first consider a site or development concept. As entrepreneurs, they are constantly following trends, watching other developers and looking for new niches to fill in the market. The feasibility study can helps the developer answer a series of market questions to refine the project concept.

Propose a feasibility study report for shopping complex with assume appropriate information.

(25 marks)

Q4 A project manager for commercial building project is trying to value the same building based upon "comparable properties" sold in recent years. There have been six property sales of buildings of comparable size in the surrounding area shown in **Table Q4**.

Table Q4: Comparable Properties Data

Property	Sale Price (RM)	Size (Sq. Ft)	Gross Rent (RM)
A	20,000,000	400,000	5,000,000
B	18,000,000	425,000	4,750,000
C	22,000,000	450,000	5,100,000
D	25,000,000	400,000	5,500,000
E	15,000,000	350,000	4,000,000
F	12,000,000	300,000	3,000,000

(a) State **FIVE (5)** assumptions that are used in valuing a building based upon comparable commercial buildings.

(5 marks)

(b) Calculate the value of the building, based upon price/square foot.

(10 marks)

(c) Calculate the value of the building, based upon price/gross rent.

(10 marks)

-END OF QUESTIONS-