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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2021/2022**

- COURSE NAME : ADVANCED REAL ESTATE VALUATION
- COURSE CODE : BPE 12503
- PROGRAMME : BPD
- EXAMINATION DATE : JULY 2022
- DURATION : 3 HOURS
- INSTRUCTION : 1. ANSWER ALL QUESTIONS.
2. THIS FINAL EXAMINATION IS AN **ONLINE** ASSESSMENT AND CONDUCTED VIA **CLOSED BOOK**.
3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK.

THIS QUESTION PAPER CONSISTS OF **EIGHT (8)** PAGES

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Q1 As a Property Consultant you are requested to give professional advise to one property developer that wishes to acquire a potential development site of 6 acres located within Muar Furniture Park (MFP) in Bukit Bakri, Muar, Johor.

The propose site is zoned for industrial use and currently pending for planning approval from Majlis Perbandaran Muar for development.

The Johor State Government has set the Bumiputra Policy guidelines of 30% of the units to be developed should be given as Bumiputera lots; and 15% discount on the sale price per unit for semi detached and terrace factories. The following are information given for the propose project development:

Types of development:	Estimated-Selling Price/rent
- 10 units semi- detached factory	RM1,500,000 /unit
- 20 units Single storey Terrace factory	RM488,000 /unit
- retail warehouse (complex)	RM10 psf (current rental)

Pre Development Cost

- Site preparation RM100,000.00 per acre
- Cost of additional premium (Conversion from agriculture to industrial) RM50,000 per acre

Construction Cost:

Types of development	Built-up area (GIA)	Land area	Cost
Semi-detached factory	7,000 sq ft	14,000 sq ft	RM130 –RM150
Single storey terrace factory	2,800 sq ft	3,000 sq ft	RM130 –RM150
Retail warehouse	45,000 sq ft	15,000 sq ft	RM 150 –RM170
Professional fees@		12%	
Cost of finance		12% per year.	
Developer’s profit and Risk@		20%.	



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- (a) You are aware of a number of other comparable units for retail warehouse in the same area as follows:
- A unit extending to 2,200 sq.m on the same park has just been let at RM178,000 p.a., on the FRI terms. The comparable has also just been sold on the open market for RM2,800,000.
 - A unit extending to 4,000 sq.m on the same park has just been let at RM260,000 p.a., on the FRI terms. The comparable has also just been sold on the open market for RM3,700,000.
- (i) Based on the above information and market evidence given, calculate using the residual method in determining the Market Value of the land. (25 marks)
- (ii) Advise the maximum price that company can offer for the land; based on information given, and other necessary assumption and justified. (5 marks)
- (b) Explain the followings:
- (i) The importance of cost of finance in **Q1(a)** in any property development shown in calculation. (5 marks)
- (ii) The importance of present value concept in arriving to Market Value of the land in **Q1(a)**, shown in calculation. (5 marks)

Q2

Majlis Perbandaran Segamat (MPS) would like to investigate the market value for Segamat public library building for Internal Management purposes using the Depreciated Replacement Cost (DRC) approach. This single storey building was constructed in year 1990 and it has a life expectancy of 60 years. This library building is located at the heart of Segamat town, in a fair state of repair and served the community well. The site comprises of 40,000 square feet for land size and built-up area for 25,000 square feet. During the site inspection, you noted that the rear building (approximately 5,000 square feet) was unoccupied due to roof leakage.

The estimated total cost of a replacement building new is RM2,465,000. Fees for the replacement building are estimated at 12% and the rebuilding period would be expected to be two years at a finance rate of 8% per annum to fund construction.

From your research at Jabatan Penilaian dan Perkhidmatan Harta (JPPH), the recent sales evidences located in the vicinity is shown in **Table Q2**.

Table Q2: Sales Evidence

Property	Sales Transaction	Date	Remarks
Lot 123, Jalan Sia Her Yam, Segamat	RM2,800,000 (T)	12 th January 2021	Type: Vacant land. Land: 40,000 sq.ft Zoning: For hotel purposes Location: 2 kms from subject property
Lot 1, Jalan Utama 2.6. Taman Utama, Segamat	RM1,600,000 (T)	20 th December 2020	Type: Vacant land Land: 20,000 sq.ft Zoning: Commercial use Location: 0.5km from subject property.
No. 5, Jalan Segamat	RM300,000 (T)	1 st April 2022	Type: Vacant land Land: 2,000 sq.ft Zoning: commercial use Location: 1 km from subject property
N0. 100, Jalan Segamat	RM280,000 (T)	1 st January 2022	Type: Vacant land Land: 2,000 sq.ft Zoning: commercial use Location: 1 km from subject property

- (a) Explain;
- (i) Building cost in DRC method.
 - (ii) Depreciation in DRC method.
- (10 marks)
- (b) Prepare a market valuation, to advise Majlis Perbandaran Segamat (MPS) on open market value with appropriate justification and obsolescence, for Segamat public library building. Make necessary assumptions to complete the valuation and justify.
- (20 marks)

Q3 The profits method of valuation is used where a premises' value is based on the profit produced by the business operating in the premises. Its principle is derived from the ability of the property to provide income to the operator from his occupation which will compensate him sufficiently for operating the business concern.

(a) (i) State **THREE (3)** circumstances in which the above principle of the profits method of valuation is adopted in the valuation of properties. (6 marks)

(ii) Identify the type of property that usually adopted the profit method as the valuation approach. (4 marks)

(b) A modern ten pin bowling centre was built two years ago in a popular shopping centre located on the edge of a large town. The catchment population extends to 20 km radius and access by highway and trunk road is excellent. The centre has 48 lanes, a licensed cafe and restaurant, a sundry shop, shoe hire facility, and a room with pool tables, amusement and gaming machines. The interior is of typical high quality finishes and facilities with mechanised computerised scoring.

The following are details obtained from the accounts and information which have been provided to you.

Operating Hours

Opens daily	11:00 to 22:00
Average usage	60% capacity

Income

Admissions	RM 60,000
Bowling income	RM 15 per game
Snack Bar	RM110,000
Cafe and Restaurant	RM230,000
Shoe Hire	RM 90,000
Sundry Shop	RM 60,000
Machines	RM 70,000

Costs

Wages	RM300,000
Operating Costs	RM250,000
Snack Bar	RM 60,000
Cafe and Restaurant	RM 90,000

This is a successful business venture which would be attractive to existing and potential operators. The following are market evidence obtained from an analysis of returns required by established businesses by property types:

Residential – 5%
Commercial – 8%
Industrial – 10%

Based on the above-given information;

Prepare a going-concern valuation of the ten pin bowling centre using a profit/ income method.
Make necessary assumptions and justify to complete the valuation.

(20 marks)

-END OF QUESTIONS-

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VALUATION MATHEMATIC FORMULA SHEET

Present Value of £1 p.a. in Perpetuity (Years' Purchase in Perpetuity)

$$\frac{1}{i}$$

Present Value of £1 p.a. in Perpetuity (in advance)

$$\frac{1}{i} \cdot (1+i)$$

Years Purchase (YP) of £1 p.a. in Perpetuity (in advance)

$$\frac{1 - (1+i)^{-n}}{i}$$

Annual Sinking Fund (ASF)

$$\frac{i}{(1+i)^n - 1}$$

i = accumulation rate, SF

YP Dual Rate (tax (t) adjusted)

$$\frac{1}{i + \left[ASF \cdot \left(\frac{1}{1-t} \right) \right]}$$

Notation for above Formulae

i = remuneration rate

t = tax rate

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Internal Rate of Return (approximation)

$$IRR = r_L + \left[(r_H - r_L) \times \left(\frac{NPV_L}{NPV_L - NPV_H} \right) \right]$$

IRR = internal rate of return
 r_l = lower trial rate
 r_h = higher trial rate
 NPV_l = net present value at the lower trial rate
 NPV_h = net present value at the higher trial rate

Implied Annual Growth Rate (IAGR) Formula

$$(1 + g)^m = \frac{\left(\frac{1}{k}\right) - \left[\frac{1 - (1 + e)^{-m}}{e}\right]}{\left(\frac{1}{k}\right) \times (1 + e)^{-m}}$$

k = all-risks yield
 e = equated yield
 m = number of periods between each rent review
 g = implied annual growth rate (IAGR)

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