Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2023/2024

COURSE NAME	:	SPECIAL PROPERTY VALUATION
COURSE CODE	:	BPE 23803
PROGRAMME CODE	:	BPD
EXAMINATION DATE	:	JULY 2024
DURATION	:	3 HOURS
INSTRUCTIONS	:	1. ANSWER ALL QUESTIONS 2. THIS FINAL EXAMINATION IS CONDUCTED VIA ☐ Open book ☒ 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 **TEN (10)** PAGES

Q1 The Inland Revenue Board (LHDN) Johor Bahru has requested you to value the properties for stamp duty purpose. Detail particulars of land title for the subject property are as in **Table Q1.1.**

Table Q1.1: Detail particulars of land title

Title No.	:	H.S.(D) 888
Lot No.	:	Lot 5379
Mukim	:	Senai
District	:	Kulai
State	:	Johor Darul Takzim
Registered area	:	200 acres
Category of land use	:	Nil
Tenure	:	99 lease, ended on 5 April 2100
Annual rent	:	RM7,221.00
Registered owner	:	Royal Resort Bhd
Express Condition	:	Building – Sport & Recreation (Golf Course)
Restriction in interest	:	This land cannot be transferred, leased, or pledged without permission from Menteri Besar Johor
Encumbrances	:	Charged to ABCD Bank Berhad, Johor Bahru
Name of Seller	:	Royal Resort Bhd
Name of Purchaser	:	Mutiara Puteri Bhd
Date of Agreement (SPA)	:	31 March 2021

The subject property is strategically located in the northern part of Kulai and enjoys better accessibility. The subject property is located about 5km from the exit north-south express highway and about 15km from the Senai International Airport.

The Club House

The clubhouse is designed to the standards for a 4-star country club facilities and is as described as in **Table Q1.2**.

Table Q1.2: The Club Facilities

Buildings	Area	Description
Golf club 2 floor: restaurant, pro shop, changing room, office and other facilities.	MFA:1785.19 sq.m AFA:1927.86 sq.m	Roof : skylight / concrete Ceiling : concrete Wall : brick wall Floor : ceramic / cement / carpet
Driving range and gym: 2 floors which is a permanent building.	MFA:268.36 sq.m AFA:665.38 sq.m	Roof : pan tile Ceiling : asbestos-free Wall : brick wall Floor : cement / carpet
Half-way house: 1 permanent building 3 units	MFA: 49.02 sq.m AFA:172.50 sq.m	Roof : pan tile Ceiling : asbestos-free Wall : brick wall Floor : cement
Outdoor Tennis Court	MFA:1449.81 sq.m	Sport linoleum floor finishing. Netting surrounding the court to prevent the ball from going out.
Swimming Pool	Volume:63,1333.2 m^3	Anti-slip tile for the floor furnishing.

The 27-hole Golf Course
The subject property consists of putting greens that contain 27-holes namely 9-holes Valley Nine courses, 9-hole River Nine courses, and 9-hole Waterfall Nine courses as well as 12 ponds, 27 elevated tees, 55 sand traps (bunkers), sprinkler system 500 head and parking bays.

Market evidence

Recent sale evidence and transactions of similar properties in the surrounding District of Senai are as in **Table Q1.3**.

Table Q1.3: Sale evidence of similar properties

Description	Sale: no 1	Sale: no 2	Sale: no 3
Lot no	3856	2439	1283
Location	10 km from the subject property	21 km from the subject property	5 km from the subject property
Sales Price	RM 10,280,440	RM25,200,000	RM12,719,137
Date of Transaction	20.12.18	20.3.2019	6.6.2017
Land Area	23.958 ha	63.575 ha	35.485 ha
Tenure	The 99-year lease expired on 5.4.2111	Freehold	Freehold
Encumbrances	Nil	Nil	Nil
Accessibility	Road frontage	Road frontage	Road frontage
Category of land use	Building (golf course)	Building (golf course)	Building (golf course)
No of holes	9-hole	18-hole	9-hole

The audited income statement for the subject property is as in **Table Q1.4**.

Table Q1.4: The audited income statement for the year 2018, 2019 and 2020

Incomes	31.12.2020 (RM)	31.12.2019 (RM)	31.12.2018 (RM)
Income fees	486,272.40	405,227.00	607,840.50
Member Dues -Golf	1,161,879.60	968,233.00	1,452,349.50
Member Dues -Social	322,398.00	268,665.00	402,997.50
Green fees	161,384.40	134,487.00	201,730.50
Cart Rentals	283,202.40	236,002.00	354,003.00
Range Fees	170,334.00	141,945.00	212,917.50
Convenient Cart -Food	19,184.40	15,987.00	23,980.50
Convenient Cart -Beverage	15,837.60	13,198.00	19,797.00
Club Storage	48,345.60	40,288.00	60,432.00
Locker Annual Rental	84,216.00	70,180.00	105,270.00
CCC Sales	21,469.20	17,891.00	26,836.50
Trail Fees	18,060.00	15,050.00	22,575.00
Pool Guest fees	12,696.00	10,580.00	15,870.00
Merchandise Sales	165,252.00	137,710.00	206,565.00
Dining Room Sales	324,242.40	270,202.00	405,303.00
Dining Beverage Sales	88,200.00	73,500.00	110,250.00
Banquet Room rental	48,146.40	40,122.00	60,183.00

Banquet Food Sales	310,408.80	258,674.00	388,011.00
Banquet Beverage Sales	164,649.60	137,208.00	205,812.00
Banquet Food - Tax Exempt	72,855.60	60,713.00	91,069.50
Banquet Beverage - Tax Exempt	26,006.40	21,672.00	32,508.00
Tournament Greens Fees	111,468.00	92,890.00	139,335.00
Tournament Cart Rentals	32,703.60	27,253.00	40,879.50
Tournament Food Sales	50,583.60	42,153.00	63,229.50
Tournament Beverage	27,660.00	23,050.00	34,575.00
Halfway House Food Sales	62,539.20	52,116.00	78,174.00
Halfway House Beverage Sales	15,829.20	13,191.00	19,786.50
Miscellaneous Income	196,999.20	164,166.00	246,249.00

The audited purchases and operating expenses statement for the subject property is as in **Table Q1.5**.

Table Q1.5: The audited purchases and operating expenses statement for the years 2018, 2019, and 2020

Purchases	**31.12.2020 (RM)**	**31.12.2019 (RM)**	**31.12.2018 (RM)**
Purchases material for F&B	80,000.00	50,000.00	70,000.00
Operating Expenses	**31.12.2020**	**31.12.2019**	**31.12.2018**
Property Tax	121,226.40	151,533.00	142,547.00
Insurance	49,876.80	62,346.00	36,184.00
General & Administrative	219,329.60	274,162.00	218,384.00
Clubhouse maintenance	256,114.40	320,143.00	186,006.00
Membership	14,467.20	18,084.00	21,394.00
Legal & Professional	16,722.40	20,903.00	15,500.00
Greens Fees	129,051.20	161,314.00	128,580.00
Course Maintenance	397,757.60	497,197.00	379,266.00
Carts	81,092.00	101,365.00	101,761.00
Range	10,767.20	13,459.00	11,417.00
Locker Room	73,074.40	91,343.00	71,652.00
Pro Shop	19,136.80	23,921.00	18,853.00
Pool	29,008.00	36,260.00	29,995.00
Tennis	10,281.60	12,852.00	2,737.00

The date of inspection which was on 5 May 2021. The return on investment of the similar properties is yielded at 9%. Based on the available data above, you are required to:

(a) Calculate the market value of the subject property using the Comparison Method of valuation.

(10 marks)

(b) Calculate the market value of the subject property using the Profit Method of valuation.

(15 marks)

(c) Justify your own opinion of value derivation based on both methods used as in **Q1(a)** and **Q1(b).**

(5 marks)

(d) Compare any **TWO (2)** advantages and disadvantages of both methods used as in **Q1(a)** and **Q1(b)** in valuing a golf course.

(10 marks)

Q2 The subject property is the proposed alienated land for quarry by the state government for 30 years and comprises two plots of land totalling approximately 67 acres. The land is in Bukit Panchor, about 5 miles from Alor Gajah town. The relevant authority gave assurance that the subject land contains substantial granite rock.

Based on the contour plan available from the geologist report, the quarry plant and machinery can be sited at Plot 2. The lower level for extraction of rock in Plot 2 is about the 400-meter contour line where else that of Plot 1 is at the 250-meter contour line. The level for extraction of rocks in Plot 2 is higher to accommodate the quarry plant. It is pertinent to note that a sufficient gradient for sitting the quarry plant is necessary for quarry operation. It is also noted that approximately 10.8 acres of rock from the 250-foot to the 400-foot contour line can be extracted from Plot 1. Similarly, it can be seen that an area of 17.1 acres of rock from the 400 feet to the 750 feet contour line can be extracted from Plot 2. In both instances, output per cubic yard is 2 tons and the allowance for overburden has been taken into consideration.

The gross income derived from the sale of quarry products is based on 8 hours per day operation for 25 days a month using a 150-ton-per-hour crusher plant. So, the Efficiency Factor of the Plant is taken as 85%.

The calculation of the total tonnage of rocks from both Plots is shown in **Table Q2.1.**

Table Q2.1: The calculation of the tonnage of rock

Formula	Area	Height	Volume (Output)
Plot 1	$\frac{(10.8 \text{ acres}@43{,}560\text{sf})}{27 \text{ cu.ft}}$	$\frac{(400 \text{ ft} - 250 \text{ ft})}{27 \text{ cu.ft}}$	= 1,306,800 cu.yard @ 2 tons 2,613,600 tons
Plot 2	$\frac{17.1 \text{ acres}@43{,}560\text{sf}}{27 \text{ cu.ft}}$	$\frac{(400 \text{ ft} - 250 \text{ ft})}{27 \text{ cu.ft}}$	= 4,827,900 cu.yard @ 2 tons 9,655,800 tons
Total tonnage of rocks from both Plots 1 & Plot 2 (30 years)			**12,269,400 tons**
Total tonnage of rocks from both Plots 1 & Plot 2 (per annum)			**360,000 tons**
Efficiency Factor of Crusher Plant (85%)			@ 0.85
Total Output for both Plot 1 & Plot 2 (per annum)			**306,000 tons**

The compositions of rock aggregates (output) in tons and the average market prices per ton are as shown in **Table Q2.2.**

Table Q3.2: Compositions of rock aggregate (output) and market price

Types of aggregates	compositions	RM/Ton
3/8" + 3/16"	20%	18.50
1 ½" + ¾"	10%	16.00
¾" + 3/8"	40%	18.50
2" Crusher runs	15%	10.00
Quarry dust	15%	4.50
Total	100%	

The average estimation of the operating expenditure is shown in **Table Q2.3.**

Table Q2.3: The average estimation of the expenditure

	RM/annum
1) Operating Expenditure	
Fuel 96,000 I.G. @RM2.10 per gallon	201,600
Explosives & Drilling Accessories	540,000
Salaries & Wages (Personnel)	345,600
Blasting & Drilling Wages	192,000
Electricity	96,000
Tyres	96,000
Repairs & Maintenance (incl. wears & tear)	420,000
Insurance	36,000
Overburden Clearing	120,000
Miscellaneous	60,000
Leasing of Plant and Machinery	385,000
2) Royalty	
Royalty (306,000 tones @ RM1.00 per ton)	306,000
3) Tenant's share	
Entrepreneur's Profit (return to operator) @ 20% of gross Income	910,350
Interest on Working Capital @ 14% per annum (15% of RM2,798,200 @ 14% per annum)	58,762
4) Capital Expenditure	
Buildings: - Quarry Site Office - Workshop including Hoist etc. - Stores - Magazine store	35,000 40,000 15,000 30,000
LLN substation	80,000
Office equipment	20,000
Site clearing, improvement to access road etc	15,000

Details on costs of plant and machinery incurred from the quarry operation is shown in **Table Q2.4**.

Table Q3.4: Plant & Machinery

Descriptions	**RM**	**RM**
Crushing and Screening Plant (150 TPH)		
- Supply, install and commission of 150 ton per hour crushing plant		1,600,000
Mobile Equipment		
- (1) Shovel/Loaders		
Cat 955 (Recon) – 1 unit	70,000	
Cat 950 (Recon) – 3 units	270,000	
Cat 966 (Recon) – I unit	110,000	450,000
- (2) Drilling Equipment		
Crawler Drill and Air Compressor	140,000	
370 cfm Air Compressors	20,000	
Hand Drills and 4 number Hoses	12,000	172,000
- (3) Dump Trucks		
1 tons Dump Trucks – 7 nos @ RM40,000		
- (4) RB Drop Ball		280,000
- (5) Weighbridge		45,000
		70,000
Total		**2,617,000**

Based on the provided information,

(a) Value the subject property for the government land alienation purpose.

(20 marks)

(b) Appraise **FIVE (5)** key factors that contribute to determining the value of a quarry.

(10 marks)

Q3 S'HAB Plantation Berhad owns a timber concession in the east coast peninsular forest area. The company has requested you value part of the concession for financing purposes. The concession is divided into two blocks, A and B and the harvesting plan is on a rotation silviculture principle.

From a survey report done by a timber consultation, it is found that the volume of loggable timber taking a 45 cm dbh is shown in **Table Q3.1**.

Table Q3.1: The volume of loggable timber

Block	Loffing period per cycle	Land area	Estimated volume (M3)
A	1 year	130 ha	10, 400
B	1 year	138 ha	11.316

The composition of timber species found in the concession is shown in **Table Q3.2**.

Table Q3.2: The Composition of timber species

Timber species	Block A	Block B
Merbau	32%	30%
Keruing	38%	37%
Kempas	13%	18%
Mengkulang	10%	8%
Other medium hardwoods	7%	7%

It is estimated that the cost of extracting the timber in relation to the gross revenue is shown in **Table Q3.3**.

Table Q3.3: The cost of extracting the timber

Pre-felling operating costs	7.2%
Log handling costs (felling, bucking, skidding, yarding, loading. Scaling, road maintenance, log-yard, delivery)	25.4%
Administrative overheads	4.4%
Interest on working capital and equipment	10%

Royalty is payable at an average of RM1.50 per cubic metre. The existing market price of timber is appended in A.

Based on the information provided,

(a) Calculate the market value of timber concession using the profit Method of valuation.

(14 marks)

(b) Outline **THREE (3)** key challenges in valuing timber concessions in Malaysia.

(6 marks)

(c) Discuss **FIVE (5)** ways technology can be leveraged in improving the process of timber concession valuations.

(10 marks)

- END OF QUESTIONS -

APPENDIX A

AVERAGE DOMESTIC PRICES OF LOGS IN THE EAST COAST

(DELIVERED AT THE MILL)

($ PER M3)

	FEBRUARY	APRIL	JUNE	AUGUST	OCTOBER	DECEMBER
HEAVY HARDWOODS						
CHENGAL	288	282	267	235	237	222
BALAU	158	148	148	159	151	154
RED BALAU	144	146	145	145	151	147
MERBAU	218	215	210	205	211	202
OTHER HEAVY HARDWOODS	88	88	84	98	92	94
MEDIUM HARDWOODS						
KERUING	135	130	129	123	128	126
KEMPAS	105	103	102	101	100	110
KAPUR	156	155	149	148	144	153
MENGKULANG	139	140	136	145	131	128
OTHER MEDIUM HARDWOODS	86	86	85	81	81	81
LIGHT HARDWOODS						
DARK RED MERANTI	171	170	166	168	161	157
LIGHT RED MERANTI	150	143	143	149	142	140
YELLOW MERANTI	97	97	96	93	92	94
WHITE MERANTI	120	120	119	119	120	125
RED MERANTI	129	134	132	131	132	135
MERSAWA	140	138	134	125	125	122
NYATOH	102	118	115	112	111	115
SEPETIR	90	93	91	91	94	94
JELUTONG	144	146	135	135	132	130
OTHER LIGHT HARDWOODS	82	82	83	72	72	78

Valuation Mathematics Formula

Simple interest	$P(1 + i \times n)$
Compound interest	$P \times (1 + i)^n$
Amount of RM1	$A = [1+i]^n$
Present Value of RM1	$PV = \frac{1}{A}$
Amount of RM1 per annum	Amt. p.a $= \frac{A - 1}{i}$
Annual sinking fund (ASF)	$ASF = \frac{i}{A - 1}$
Mortgage	$M = \frac{X\,(i + S)}{12}$
YP single rate	$\frac{1-PV}{i}$
YP dual rate	$\frac{1}{i + S(tax)}$ $S = \frac{i}{A - 1}$ $tax = \frac{1}{1-tax}$
YP perpetuity	$\frac{1}{i}$
YP reversion to perpetuity	$\frac{1}{iA}$