Note: The explanation of the data below is considered to be a guide only and student answers may vary. The student's observations about the data should be concise and relevant to interpretation.

Marks:

2 1. (a) Current Lending Value of Home:
= \$250,000 × 1.30 (as the value has gone up by 30%)
= \$325,000 × 0.8 (LTV of 80%)
= \$260,000

With the loan-to-value ratio set at 80%, the maximum loan is \$260,000.

2 (b) ASSUMPTION: Assume a mortgage rate of $j_2 = 4.6\%$ taken from the Bank of Canada website. This rate represents the average interest rate for a 5-year fixed rate mortgage available 5 years ago.

1 $j_2 = 4.6\% \rightarrow j_{12} = 4.556526\%$

\$187,500 = PMT × a⟦300, $j_{12} = 4.556526\%$⟧

1 PMT = \$1,048.21

1 OSB_{60} = \$164,889.65

Press	**Display**
4.6 ■ NOM%	4.6
2 ■ P/YR	2
■ EFF%	4.6529
12 ■ P/YR	12
■ NOM%	4.556526
187500 PV	187,500
0 FV	0
300 N	300
PMT	-1,048.210867
1048.21 +/- PMT	-1,048.21
60 INPUT ■ AMORT	PER 60-60
= = =	164,889.647442

(c) GDSR = 0.32 = (Annual Mortgage Payment + Annual Property Taxes)/Annual Gross Income

1 Maximum Annual Mortgage Payment = 0.32(\$5,500 ×12) - \$2,000
Maximum Annual Mortgage Payment = \$19,120

1 Maximum Monthly Payment = \$1,593.33

2 (d) ASSUMPTION: Assume a current mortgage rate of j_2=3.77% representing the average of 5-year fixed mortgage rates for this time period. Information is taken from the Bank of Canada website.

$j_2 = 3.77\% \rightarrow j_{12} = 3.740726\%$

2 PV = \$1,593.33 × ⟦240, $j_{12} = 3.740726\%$⟧

PV = \$268,959.21

Marks:

Press	Display
3.77 ■ NOM%	3.77
2 ■ P/YR	2
■ EFF%	3.805532
12 ■ P/YR	12
■ NOM%	3.740726
1593.33 +/- PMT	-1,593.33
0 FV	0
240 N	240
PV	268,959.21231

1 (e) Since the maximum loan under the LTV ratio ($260,000) is lower than the maximum loan under the GDSR ($268,959.21), the LTV ratio is binding.

Because the balance outstanding on the current loan is smaller than the maximum allowable loan, Anna and Andre will not have to pay cash to obtain their loan renewal. If Andre and Anna qualify for a loan larger than the current OSB (which they do), they could obtain an additional $95,110.35.

Outstanding Balance	$164,889.65
- Maximum Allowable Loan	- 260,000.00
1 Total additional funds	- $95,110.35

2. (a) Rent Revenue

$900 per month × 50 suites × 12 months per year	$540,000
Additional Revenue	
+ Parking ($10,000 per month × 12 months per year)	+120,000
1 =GROSS POTENTIAL INCOME	$660,000
-Vacancy Allowance: Apartments (2% × 540,000)	-10,800
1 EFFECTIVE GROSS INCOME	$649,200
-Operating Expenses	-215,000
2 =NET OPERATING INCOME	$434,200

1 (b) Lending Value = NOI ÷ Capitalization Rate = $434,200 ÷ 0.09 = $4,824,444.44

(c) (i) Loan-to-Value Ratio
=70% × Lending Value
= 0.70 × $4,824,444.44
1 = $3,377,111.11

(ii) Safety Margin = 15% of NOI

Maximum Annual Payment = NOI(1 - Safety Margin)
= $434,200 (1 - 0.15)
1 = $369,070

Maximum Monthly Payment = $369,070 ÷ 12
1 = $30,755.83

Marks:

Maximum Loan:

1 ASSUMPTION: Assume that the current lending rate for a 15-year term mortgage is j_2=7%. [Students need to provide a brief explanation.]

1 $j_2 = 7\% \rightarrow j_{12} = 6.900047\%$

$PV = \$30{,}755.83 \times a[\![180, j_{12} = 6.900047\%]\!]$

$PV = \$3{,}443{,}140.13$

Press	Display
7 ■ NOM%	7
2 ■ P/YR	2
■ EFF%	7.1225
12 ■ P/YR	12
■ NOM%	6.900047
180 N	180
30755.83 +/- PMT	-30,755.83
0 FV	0
1 PV	3,443,140.13479

(iii) Debt Coverage Ratio = 1.25

Maximum Annual Payment = NOI ÷ DCR

= $434,200 ÷ 1.25

1 = $347,360

Maximum Monthly Payment = $347,360 ÷ 12

1 = $28,946.67

Maximum Loan:

ASSUMPTION: Current lending rate for a 15-year term is 7%

$j_2 = 7\% \rightarrow j_{12} = 6.900047\%$

$PV = \$28{,}946.67 \times a[\![180, j_{12} = 6.900047\%]\!]$

$PV = \$3{,}240{,}603.20$

Press	Display
7 ■ NOM%	7
2 ■ P/YR	2
■ EFF%	7.1225
12 ■ P/YR	12
■ NOM%	6.900047
180 N	180
28946.67 +/- PMT	-28,946.67
0 FV	0
1 PV	3,240,603.20419

(d) Maximum Loan

Loan-to-Value Ratio: $3,377,111.11

Safety Margin: $3,443,140.13

Debt Coverage Ratio: $3,240,603.20

1 Therefore, the maximum loan available is $3,240,603.20 using the debt coverage ratio.

Marks:

3	3.	Explanation of historical year-to-year activity for a particular rate
5		Chart: include graph/table, source stated, clear presentation
3		Discussion of general patterns shown on chart
4		Examples to explain specifics with the chart with respect to market events in economy: i.e., sub-prime influence, global recession, bond market
2	4.	Identification of mortgage products available from two banks
3		Description of products
5		Comparison of products
5		Reasons for similarities/differences between products
15	5.	Identification, comparing and contrasting of key features of private mortgage insurers and CMHC mortgage loan insurance programs such as down payments, GDSR/TDSR, portability, VRM, refinancing options, self-employed, RRSPs.
	6.	Students are to provide the outcome of a web search on a keyword or topic related to legal issues in mortgage finance. The topic is of the student's choosing, but should not be a site already included in the Course Resources webpage for BUSI 221 on the Real Estate Division's website. Marks are awarded on the basis of:
5		Overview: provide the link; explain where it was found, who created the site/page, and an explanation of their motivation in creating it. Why did you choose the site/article?
10		Description: what are the main points made on the site/page or article? Or what concepts are explain/illustrated?
5		Analysis: the relevance of the site/page to the student as a real estate practitioner and a discussion of whether the student agrees or disagrees with what is presented. Or how does this site compare to others you have viewed?
5		Presentation
100		Total Marks