KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF COMMERCE

BAC 414: REAL ESTATE FINANCE

DATE: MONDAY 15TH MAY 2017 **TIME: 11.00 A.M. - 1.00 P.M.**

INSTRUCTIONS: **Answer ALL Questions.**

QUESTION ONE

Mr. Joel Olengo a real estate businessman took a 30-year loan made up of Ksh.420,000,000 at an interest rate of 12 percent (nominal) p.a. for use and investment of his business. The bank he borrowed from gave him an opportunity to choose from the various options of Constant Payment Mortgage (CPM) loans: Fully amortizing, partially amortizing interest only and negative amortizing CPM. Mr. Olengo is informed that you studied real estate finance course at Kenyatta and approaches you for advice regarding the four options availed to him. Consequently you agree and accept to advice him.

Required:

(a)(i) Tabulate the payment schedule showing the constant monthly mortgage payments on this loan, assuming it is to be fully amortized at the end of 30 years? (4 marks)

(ii) When is it appropriate for Mr. Olengo to use this method? (1 mark)

(b)(i) Tabulate the payment schedule showing the constant monthly mortgage payments on this loan, assuming it has to have a balloon payment of Ksh.280,000,000 at the end of 30 years. (4 marks)

(ii) When is it appropriate for Mr. Olengo to use this method? (1 mark).

(c)(i) Tabulate the payment schedule showing the constant monthly mortgage payments on this loan, assuming that the loan balance should be Ksh.560,000,000 at the end of 30 years? (4 marks).

(ii) When is it appropriate for Mr. Olengo to use this method? (1 mark)

QUESTION TWO

Metrine Rephah Ltd (MRL) has decided to enter into a joint venture with Nanjumia Ltd (NL) to develop and operate an office building. The project will require an initial equity investment of Ksh.300 million, with MRL investing Ksh.270 million and NL investing the remaining Ksh.30 million.

Assuming:

1) That each party invests its capital and then participates in year-en cash flows from operations, which are projected as follows:

Time	Operating (Sh)	Sale (Sh)
Inception	(300,000,000)	
Year 1	6,000,000	
Year 2	12,000,000	
Year 3	30,000,000	
Year 4	36,000,000	
Year 5	39,000,000	450,000,000

2) It is further assumed that the property will be sold at the end of year 5 and that the net proceeds from the sale will provide Ksh.450 million to be distributed to the investors.

The joint venture partnership agreement specifies that MRL will receive a 5 percent *noncumulative,* preferred return on its Ksh.270 million in equity. However, this distribution must be paid before NL receives *any* cash from operations. After MRL receives its preferred return, NL receive a 5 percent noncumulative return on its equity capital of Ksh.30 million. Any remaining cash flow will be split 50 per cent to each party. When the property is *sold,* proceeds from sale will first be used to provide MRL with a capital recovery equal to its initial equity investment. Next, NL will receive an amount equal to its initial equity investment. MRL will then receive an amount sufficient to earn a 12 percent IRR on equity investment. All remaining cash proceeds are to be split 50-50.

Using the above assumptions: required:

(a) Calculate the total cash flows available to the joint venture and the resulting IRR preferences rate for the JV. (4 marks)

(b) Calculate the total cash flows available to Metrine Rephah Ltd (MRL) and their resulting IRR preference rate. (4 marks)

(c) Calculate the total cash flows available to Nanjumbia Ltd (NL) and the resulting IRR preference rate. (4 marks)

(d) Calculate the cash flows that each party will receive from sale of the property (4 marks).

(e) Calculate the total cash flows available to each party upon termination of the joint venture and the resulting IRR preference for each party. (4 marks)

(f) Calculate the total cash flows available to each party using 12% *IRR lookback* to Metrine Rephah Ltd (MRL) and resulting IRR rate for each party upon termination of the joint venture. (4 marks)

(g) Give one reason why Metrine Rephah Ltd (MRL) might choose or prefer *IRR* lookback to IRR preference although an *IRR* preference gave the company a return that is at least equal to or greater than what the return would be with an *IRR* lookback?. (1 mark).

QUESTION THREE

(a) Briefly describe the meaning of the following terms as used in real estate finance.

- (i) Tenancy at Sufferance (2 marks)
- (ii) Condominiums (2 marks)
- (iii) Abandonment (2 marks)
- (iv) Loan Points (2 marks)
- (v) Abutting (2 marks)
- (vi) Acre (2 marks).

(b) Differentiate the meaning of the following terms as frequently used in real estate finance.

- (i) Freehold tenure and leasehold tenure (2 marks)
- (ii) Title and an abstract of a title (2 marks).

QUESTION FOUR

(a) Highlight and briefly explain at least three motivations for investing real estate Income Properties. (3 marks).

(b) Consider the possible purchase of an office building by an investor for $8.5 million construction of the maima Building was completed two years ago. The lead tenant is a bank that signed a five-year lease, which started when the building was completed two years ago. A law firm signed a five a five-year lease one year ago and a mortgage broker just signed a five-year lease on the remaining space. A summary of the existing leases is shown below.

Summary Lease Information - Monument Office Building

Tenant	Square Feet	Rent (per square foot)	Base Rent	Remaining Lease Term (years)	Adjustment (%)
Bank	70,000	$14.00	$980,000	3	50.00%
Law firm	10,000	14.5	145,000	4	50
Mortgage broker	16,000	15	240,000	5	50
	95,000		$1,365.000		

Additional assumptions are as follows:

Current market rent (per square foot): $15. Leasable square feet area: 96,000. Projected increase in market rent per year: 4.00 percent. Management costs (5 percent of effective gross income): 5.00 per cent. Estimated annual increase in the consumer price index: 4.00 percent.

Expense stops in the existing lease are assumed to be as follows

Lease	Stop
Bank	$4.00
Law firm	4.25
Brokerage	4.45

Projected Expense Reimbursement per Year*

	1	2	3	4	5	6
Bank	$31,500	$39,445	$58571	$0	$8,979	$18334
Law firm	2,001	3,135	5,868	7,098	0	1,336
Brokerage	0	1,816	6,188	8158	10,210	0
Total	$33,501	$44,396	$70,627	$15,256	$19,189	$19,670

Required

Based on the rental information and expense information above, tabulate and calculate the projected net operating income (*NOI*) yearly for the six years (12 marks)