Strathmore UNIVERSITY

SIMS
BBS FINANCE
END OF SEMESTER EXAMINATION
BSF 4238 ALTERNATIVE INVESTMENTS

DATE: 13th November 2018 Time: 2 Hours

Instructions
1. This examination consists of **FIVE** questions.
2. Answer **Question ONE (COMPULSORY)** and any other **TWO** questions.

QUESTION ONE [30 marks]

a) Explain the concept of cash sweep in LBOs (2 marks)

b) A friend is curious about volatility of land priced in Nairobi and its environs. She is curious about the factors the influence land prices. Explain to her any two factors clearly pointing how they relate to (i) NOI, (ii) r and/or (iii) g (4 marks)

c) Explain three ways in which REITs can grow income (3 marks)

d) Explain the framework for evaluating distressed properties (3 marks)

e) Explain the applicability of real option valuation technique in private equity (3 marks)

f) The terminal value of the equity stake in an LBO is Sh. 200 million in five years. The risk free rates, market risk premiums, enterprise beta, senior debt, and junior debt values are provided for the life of the LBO investment in the table below:

Year	**0**	**1**	**2**	**3**	**4**	**5**
T-bill rate	5%	5%	5%	5%	5%	5%
Market risk premium	8%	8%	8%	8%	8%	8%
Enterprise beta	1.0	1.0	1.0	1.0	1.0	1.0
Senior debt (Sh'millions)	70	60	50	40	30	20
Junior debt (Sh'millions)	90	90	90	90	90	90

Required
Calculate the enterprise value using the equity cash flow method (15 marks)

QUESTION TWO [20 marks]

a) ABC REIT expects an income of Sh.8.00 per share. This includes a deduction of Sh.2.00 per share for depreciation. ABC did not have any gains from the sale of real estate. Its properties are mainly apartments, and you believe that apartments are currently selling on average at about an 8 percent cap rate. ABC has 1 million shares outstanding currently trading at Sh 80 and its balance sheet shows liabilities of Sh. 40 million. Comparable REITs have FFO multiples of about 10. ABC is expected to pay a dividend during the next fiscal year of Sh. 6.00 per share and to increase those dividends at about 2 percent per year in the future. Investors in REITs like ABC usually expect a return of about 12 percent.

Required: Calculate

i) The FFO and value per share based on an FFO multiple (2.5 marks)
ii) Value per share using a dividend discount model (2.5 marks)
iii) Value per share implied by the net asset value of the properties (2.5 marks)
iv) Advice on the investment recommendation (2.5 marks)

b) An investor has approached you to assist him in analyzing a potential real estate investment in Nairobi. The property is an office block located in a fast growing Nairobi's Financial District. Prepare a comprehensive due diligence checklist with detailed explanation for each item. (10 marks)

QUESTION THREE [20 marks]

a) Explain any four real estate investment risk factors (4 marks)

b) A company wants to buy a 320,000-square-foot property. The property is presently renting for Sh. 4 per square foot. Based on recent market activity, two properties have sold within a two-kilometre distance from the subject property and are very comparable in size, design, and age. One property is 350,000 square feet and is presently being leased for Sh. 3.90 per square foot annually. The second one contains 300,000 square feet and is being leased for Sh. 4.10 per square foot. Market data indicate that current vacancies and operating expenses should run approximately 50 percent of gross income for these properties. The first property sold for Sh. 9.4 million, and the second sold for Sh.7.9 million.

Required
How much should the company pay for the property? (4 marks)

c) A firms founders believe that their firm can be sold for Sh. 60 million in four years. The firm needs Sh. 6 million in capital now and Sh. 3 million in three years. The entrepreneurs want to hold 1 million shares. The private equity firm uses a discount rate of 50% over all four years

Required
Calculate:
i) Post money valuation at time of first and second round of financing (3 marks)
ii) The required fractional ownership for the first round investors, after dilution by second round investors (3 marks)
iii) The stock price per share after the first and second rounding of financing (6 marks)

QUESTION FOUR [20 marks]

a) Discuss the argument that commodities are not an asset class (6 marks)

b) The GP for the private equity fund charges a management fee of 2% and carried interest of 20%, using the first total return method. The total committed capital for the fund was Sh. 200 million. The figures in the table are in millions.

	Capital called down	Paid in capital	Management fees	Operating results	NAV before distributions	Carried interest	Distribution	NAV after Distribution

2004	60	60	1.2	(15)	43.8			43.8
2005	20	80	1.6	(20)	42.2			42.2
2006	10	90	1.8	30	80.4			80.4
2007	20	110	2.2	50	148.2		30	118.2
2008	25	135	2.7	70	210.5		50	158.4
2009	10			120			90	

Required:

i) Calculate the paid-in capital and management fees for 2009 (2 marks)
ii) In what year is carried interest first paid? Calculate the carried interest for 2009 (4 marks)
iii) Calculate the DPI, RVPI and TVPI for 2009 (8 marks)

QUESTION FIVE [20 marks]

a) Discuss any four valuation characteristics of venture capital investments (6 marks)

b) Consider a new residential income producing property for sale to a potential investor. The sale price for the property is Sh. 1,250,000; rent is estimated at Sh. 200,000 in the first year and is expected to grow at 3% p.a. thereafter. Vacancies and collection losses are expected to be 10% of rent. Operating expenses will be 31.5% of rent. A 70% mortgage loan can be obtained at 11% p.a. payable monthly for 30 years. The property is expected to appreciate in value at 3% per year and is expected to be owned for five years and then sold.

Required

Calculate the expected before tax IRR on equity invested. Is this investment viable if required rate of return is 12%? (14 marks)