MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATION
2018/2019 ACADEMIC YEAR
THIRD YEAR SECOND SEMESTER

SCHOOL OF BUSINESS AND ECONOMICS
BACHELOR OF SCIENCE FINANCIAL ECONOMICS

COURSE CODE: ECF 3204

COURSE TITLE: ASSET PRICING

DATE: 23RD APRIL, 2019 **TIME: 1100 – 1300HRS**

INSTRUCTIONS TO CANDIDATES

1. Answer question **ONE** and any other **THREE** questions

2. All examination rules apply

This paper consists of 6 printed pages. Please turn over.

QUESTION ONE

1(a). Discuss the conceptual differences between the capital asset pricing model (CAPM) and the arbitraged pricing theory [APT].
(7marks)

b] An investor is considering investing in the stocks of three companies, A ltd, B ltd and C ltd. the following information relates to the stock of three companies.

	Sensitivity of stocks to change in		
Company	**marked index**	**inflation rate**	**economic growth rate**
A Ltd	50	-0.10	0.56
B Ltd	0.90	0.16	0.60
C Ltd	1.10	-0.43	0.86

During the year 2018,it expected that the market index will increase in performance by 2.5% up from its current 5%.The risk free of rate return in the market will be 6% on average and the inflation and economic growth rates will be 10% and 5.6% respectively.

Required:

]i] Expected returns for the three stocks in year 2018 using the capital asset pricing model [CAPM**)**

(5marks)

ii] Expected returns for the three stocks in year 2018 using the arbitrage pricing theory [APT]

(5marks)

iii] State the reason why an investor would get different returns estimates in b [i] and b[ii] above.

(2mark)

[c]Comment on the assertion that capital structure is strongly influenced by managerial behavior

(6marks)

QUESTION TWO

(a) Distinguish between “integration of financial markets’’ and ‘’segmentation of financial markets’’

(4marks)

(b) The introduction of integrated financial management information systems [IFMIS] has been promoted as a core component of public financial reforms in many developing countries. Analyze four benefits that could accrue from the implementation of IFMIS

(3marks)

(C) A European call option trading at the securities exchange has an excise price of ksh 40.Its maturity date is six month from now .The current stock price is ksh 28 and the instantaneous variance of the return of the underlying asset is 0.5, the risk free rate is 6%

Required:

Use the black -scholes option pricing model to compute the value of the call option:

Hint; C=SN [d1]-Ee-rt N[d2]

d1= In[S/E]+ [R +6/2 2]t

d2 =di-5t

E0.03=0.9704

(8marks)

QUESTION THREE

A firm operating in a mature industry, Eden farms is expected to maintain a constant dividend payout ratio and constant growth rate in earnings for the foreseeable future .earnings were sh.4.50 per share in the recently completed fiscal year.The dividend payout ratio has been 55% in recent years and is expected to remain so. Eden farms return on equity is expected to remain at 1% in the future and you require an 11% return on stock.

REQUIRED;

(a) Using the constant growth rate, calculate the current value of Eden farms share**.**

(5marks)

(b) After an aggressive acquisition and marketing programme, it now appears that Eden farms earning per share and return on equity will grow rapidly over the next two years. Assuming that Eden farms dividend will grow at a rate of 15% for the next two years, returning in the third year to the historical growth and continuing at the historical growth for the foreseeable future, calculate Eden farm current market price**.**

(6marks)

(c) Discuss the four techniques a company might use to hedge against the foreign exchange market.

(4marks)

QUESTION FOUR

[a] Explain the following statements as used in asset pricing

(i) Euro dollar

(3marks)

(ii) International bond market **(2marks)**

(iii) International stock market

(2marks)

(b) The following information relates to call and put options on a stock

Call price,Co =sh 4.50

Put price, Po=sh 6.80

Exercise price,Xo=sh 70

Current stock price,S=sh 67.32

Days to option expiration =139 days

Risk free rate r =5%

Required;

Using the put –call parity, determine the price of the following

(i) Synthetic call option **(2marks**)

(ii) Synthetic put option **(2marks)**

(iii) Synthetic bond **(2marks)**

(iv) Synthetic underlying stock **(2marks)**

QUESTION FIVE

(a) Consider two investment that have cash flow stream and associated proballities.

PROJECT A

Cash flow [shs]	utile	prob	]
-20,000	-0.20	0.10	

0	0	0.10
60,000	0.60	0.60
80,000	0.80	0.50

PROJECT B

CASH FLOW(shs)	utile	prob
-25,000	-0.25	0.10
0	0	0.2
50,000	0.50	0.5
100,000	1.00	0.2

Required;

i] The expected monetary value to project A and B **(4marks)**

ii] The expected utility value in A and B **(4marks)**

iii] Which investment should be accepted in [i] and [ii] above **(2marks)** [b] Discuss the advantages of utility approach and its limitation **(5marks)**

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