TECHNICAL UNIVERSITY OF MOMBASA

School of business

DEPARTMENT OF ACCOUNTING AND FINANCE

UNIVERSITY EXAMINATIONS FOR DEGREE IN BACHELOR OF / COMMERCE/ BUSINESS ADMINISTRATION.

BMS 4304; FINANCIAL FORECASTING AND MODELLING.

END OF SEMESTER EXAMINATIONS

SERIES; MAY 2015

TIME; 2 HOURS

Instructions;

Answer question one and any other two questions.

Question one (compulsory)

a) Describe briefly the process of modeling. (10 marks)

(b) The following cost data relate to BAC Ltd for the last ten weeks.

Week No.	Advert expense	Sales
1	34	340
2	44	346
3	24	287
4	36	262
5	30	220
6	49	416
7	39	337
8	21	180
9	41	376
10	47	295

Required; Estimate the total sales if the company wishes to spend sh. 60 in advertisement suing;

(i) High and low

(ii) Least square (10 Marks)

(c) (i) Briefly describe four qualitative models that can be used in forecasting. (5 marks)

(ii)Briefly describe four quantative models that can be used in forecasting. (5 marks)

Question two

The following of financial position for Supreme Ltd as at 31st December 2012

Non current assets	12200000
Current assets	8800000
Total assets	21000000
Equity and liabilities	
Ordinary shares	2,200,000
Retained earnings	6,600,000
Long term debt	7,800,000
Accounting payable	2,200,000
Accrued expenses	2,200,000
Total assets	21,000,000

Additional information

I. The company is about on an Advertising Campaign which is expected to raise sales from their present level of ksh 27.5 million to ksh 38.5 million by the end of the financial year

II. The firm will have to increase its investment in both current and non-current assets to support the projected level of sales. Its estimated that both categories of assets will increase in direct proportion to the projected increases in sales

III. For the year ended the firms net profit were 6% of the year's sales but are expected to rise to 7%of projected sales

IV. In past year the company's dividend payments ratio has been 80% but management intends to change this to 50%.

V. Accounts payable and accrued expenses are expected to vary directly with sales. In addition notes payable will be used to supply the added funds to finance next year's operations.

REQUIRED

a) Estimate the additional funds to be raised through notes payable (5marks)
b) Prepare pro-forma statement of financial position for the year ended 31st December 2013 (15marks)

Question Three

a) Distinguish between normative modeling and descriptive modeling, giving relevant examples of each (6 marks)
b) Briefly explain the main assumptions that analysts make when dealing with linear programming model (14 marks)

Question Four.

(a) The following data set represents a set of hypothetical demands that have occurred over several consecutive years and the forecast for the first two years.

period	Demand in units.
1	310
2	365
3	395
4	415
5	450
6	465

Using a smoothing co-efficient of 0.6, calculate the forecasted units for periods 2 to 6 if the first years forecast was 300 units. (5 marks)

Using a moving average of two years, calculate the forecast for 2 to 6 (5 marks)

(b) Briefly explain the following terms as used in time series analysis.

(i) Trend

(ii) Seasonality

(iii) Cycles

(iv) Random variations. (4 marks)

(c) Briefly explain any three ways of measuring forecasting accuracy. (6 marks)

Question five.

(a) The Opening cash balance of Kalula co. Ltd. on 1st Jan. was kshs.130,000. The sales, which were at a mark up of 25%, were budgeted as follows:

Month	**Sales (Kshs)**
October	1,200,000
November	800,000
December	900,000
January	760,000
February	1,000,000
March	820,000

Analysis of records shows that debtors settle their obligations according to the following pattern.

60% within the month of sales
25% the following month
10% the month following
5% are normally irrecoverable.

All purchases were on credit and the payment schedule was that 90% within the month of purchase and the balance settled a month later.
All goods sold are acquired /Purchased a month before.

Wages were 55,000/= per month and overheads of Kshs.140,000 per month (including Kshs.55,000 depreciation) are settled monthly.

Debts settled within the month of sales qualifies for 5% discounts while credits settled within the same period qualified for 3% discount.

Taxation of 58,000/= was paid in February and the company received a settlement of insurance claims amounting to Kshs.250,000 in March.

The company has a policy to maintain cash at hand at sh.100,000 and a maximum of sh.200,000. Any shortfall is bridged by liquidating marketable securities and excess is invested in the same securities.

Required:

Prepare a Cash Budget for January, February and March. (15 marks)

(b) Briefly explain five reasons why a business organization needs a cash flow forecast (5 marks)