



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2017/2018
FIRST SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION

BMS 843: PROJECT FINANCING AND RESOURCE RESCHEDULING

DATE: Wednesday, 22nd November, 2017

TIME: 5.30 p.m. - 8.30 p.m.

INSTRUCTIONS: Answer question ONE and any other THREE questions.

QUESTION ONE (40 Marks)

- a) Discuss the advantages and disadvantages of short term and long term sources of finance. (8 marks)
- b) Explain the expected outputs in cost control. (8 marks)
- c) Explain the assumptions of cost volume profit analysis. (8 marks)
- d) Prepare a Production Budget for each month and Production Cost budget for the six months period ending 31st December 2003 from the following data of product "X": (10 marks)
- (1) The units to be sold for different months are as follows:
- | | | |
|-------------|---|-------|
| 2003 | | |
| July | — | 1,100 |
| August | — | 1,100 |
| September | — | 1,700 |
| October | — | 1,900 |
| November | — | 2,500 |
| December | — | 2,300 |
| 2004 | | |
| January | — | 2,000 |
- (2) There will be no work in progress at the end of any month.
- (3) Finished units equal to half the sales for the next month will be in stock at the end of each month (including June 2003).

- (4) Budgeted production and production cost for the year ending 31" December 2003 are as follows:

Production (Units)	22,000
Direct Material Per unit	Kshs. 10,000
Direct wages Per unit	Kshs. 4.00
Total factory overhead apportioned to product	88,000

- e) A factory manufacturing sewing machines has the capacity to produce 500 machines per annum. The marginal (variable) cost of each machine is Kshs 200 and each machine is sold for Kshs 250. Fixed overheads are Kshs 12,000 per annum. Calculate the break-even points for output and sales and show what profit will result if output is 90% of capacity? (6 marks)

QUESTION TWO (20 marks)

- a) Difference between forecast and budget. (5 marks)
- b) The following information relates to Pushpack & Co., a glass manufacturing company.

Toughened Glass	Kshs. 2,00,000
Bent Toughened Glass	Kshs. 3,00,000
Direct Material Cost	60% of Sales
Direct Wages	10 workers @ Kshs. 100 per month
Factory Overheads:	
Indirect Labour:	
Work Manager	Kshs. 300 Per month
Foreman	Kshs. 200 Per month
Stores and Spares	2% on Sales
Depreciation on Machinery	Kshs.6,000
Light and Power	Kshs. 2,000
Repairs and Maintenance	Kshs.4,000
Other Sundries	10% on direct Wages

Administration, Selling and Distribution expenses Kshs. 7,000 per year.

Required

Calculate and present the budget for the next year. (12 marks)

QUESTION THREE (20 marks)

- a) Identify and briefly explain the circumstances under which conflict arises between Net Present Value and Internal Rate Return. (5 marks)
- b) Following data relate to five independent investment projects :

<i>Projects</i>	<i>Initial Outlay</i>	<i>Annual Cash Inflows</i>	<i>Life in Years</i>
P	1,000,000	250,000	8
Q	240,000	24,000	15
R	184,000	30,000	20
S	11,500	4,000	5
T	80,000	12,000	10

Assume a 10% required rate of return and a 50% tax rate. Rank these five investment projects according to each of the following criteria :

- (i) Pay-back Period. (3 marks)
- (ii) Accounting Rate of Return. (3 marks)
- (iii) Net Present Value Index. (3 marks)
- (iv) Internal Rate of Return. (6 marks)

QUESTION FOUR (20 marks)

- a) State any 5 limitations of the assumptions of PERT and CPM. (5 marks)
- b) A project consists of seven activities and the time estimates of the activities are furnished as under:

Activity	Optimistic Days	Most Likely Days	Pessimistic Days
1-2	4	10	16
1-3	3	6	9
1-4	4	7	16
2-5	5	5	5
3-5	8	11	32
4-5	4	10	16
5-6	2	5	8

Required:

- i) Draw the network diagram. (5 marks)
- ii) Identify the critical path and its duration. (2 marks)
- iii) The expected time and variance for each of the activities (in days). (5 marks)
- iv) The probability that the project will be completed in 5 days earlier than the critical path duration. (5 marks)

QUESTION FIVE (20 marks)

- a) Explain the characteristics and assumptions of transportation problems. (8 marks)
- b) A factory is going to modify of a plant layout to install four new machines M₁, M₂, M₃ and M₄. There are 5 vacant places J, K, L, M and N available. Because of limited space machine M₂ cannot be placed at L and M₃ cannot be placed at J. The cost of locating machine to place in Shillings is shown below:

	J	K	L	M	N
	Kshs '000'	Kshs '000'	Kshs '000'	Kshs '000'	Kshs '000'
M ₁		18	22	30	22
M ₂	24	18	—	20	18
M ₃	—	22	28	22	14
M ₄	28	16	24	14	16

Required:

Determine the optimal assignment schedule in such a manner that the total costs are kept at a minimum. (12 marks)