

SERIES 2 EXAMINATION 2006

MANAGEMENT ACCOUNTING

LEVEL 3

(Code No: 3623/M)

MONDAY 29 MAY

Instructions to Candidates

- (a) *The time allowed for this examination is 3 hours.*
- (b) *Answer 5 questions.*
- (c) *All questions carry equal marks.*
- (d) *All answers must be clearly and correctly numbered but need not be in numerical order.*
- (e) *Your answers should be written in blue or black ink/ballpoint. Pencil may be used only for graphs, charts, diagrams, etc.*
- (f) *Candidates may use calculators provided the calculators give no printout, have no word display facilities, are silent and cordless. The provision of batteries and responsibility for their condition must rest with the candidate.*
- (g) *All workings must be shown.*



QUESTION 1

- (a) Describe the advantages of **decentralisation** and the objectives of **transfer pricing** systems for sales between divisions of decentralised companies. (7 marks)
- (b) Describe what is meant by **graphical linear programming**. (6 marks)
- (c) Describe **sensitivity analysis**, and state how it can be applied to capital investment appraisal calculations. (7 marks)
- (Total 20 marks)**

QUESTION 2

A Ltd has an opportunity to undertake a one-year contract for B Ltd, for which the production department has prepared the following cost statement.

Materials:		RM
A	In stock	20,000
B	On order	15,000
C	To be specifically ordered	35,000
Labour:		
Machine operator	(50 weeks at RM600 per week)	30,000
Labourer	(50 weeks at RM300 per week)	15,000
Supervisor		35,000
Other costs:		
Depreciation of machine		10,000
Variable overheads		2,000
General overheads		<u>15,000</u>
		177,000

B Ltd has offered A Ltd RM125,000 and the Production Manager is inclined to reject the contract, but has sought a second opinion from the accounting department.

The following information has now become available:

- (1) There is sufficient spare machine capacity, in the department concerned, to undertake the contract. The machinery is not currently in use. The company has recently received an offer of RM8,000 for it. Its resale value in one years time will be RM2,000.
- (2) Material A is obsolete and could not be sold. It could be used as a substitute for Material W which would cost RM10,000 to purchase a similar quantity, but would need processing at a cost of RM3,000 to make it useable.
- (3) Material B has not yet been delivered. It was ordered for another job which has now been cancelled and is of no further use to A Ltd. If it has to be sold the current price is RM20,000, owing to a problem in the producing country.
- (4) The machine operator will be transferred from another department with spare machine capacity where he currently earns a guaranteed wage of RM500 per week. The supervisor would transfer from the same department where he is currently a deputy supervisor at a salary of RM33,000 per year. He would not be replaced.
- (5) The labourer would be hired for the duration of the contract.
- (6) The general overhead is a charge of 33.3% on direct labour. The company applies this rate to all jobs to recover its fixed overhead.

QUESTION 2 CONTINUED

- (a) State, on the basis of incremental costs and revenues, whether or not the company should accept the contract. Prepare figures to support your conclusion. (15 marks)
- (b) List the general principles that you would use in making relevant cost decisions. (5 marks)

(Total 20 marks)

QUESTION 3

A company produces and sells a single product. The direct cost standards per unit of product are:

Direct Material	30 kilos at RM1.5 per kilo
Direct Labour	10 hours at RM6 per hour

Production overhead is all fixed and budgeted at RM600,000 for 60,000 labour hours to produce 6,000 units. Fixed overhead is absorbed on a per unit of product basis.

The following actual figures are available for the year:

Production	5,800 units
Direct material	185,000 kilos at a cost of RM259,000
Direct labour	57,000 hours at a cost of RM319,000
Production overhead	RM590,000

- (a) Calculate the appropriate variances for material, labour and overhead. (9 marks)
- (b) Prepare a statement for management reconciling the total standard cost with the cost of production for the year, using the variances calculated in (a) above. (5 marks)
- (c) Calculate the:
- (i) Capacity Ratio (2 marks)
 - (ii) Efficiency Ratio (2 marks)
 - (iii) Production Value (Activity) Ratio (2 marks)

(Total 20 marks)

QUESTION 4

A company is evaluating the investment in new machinery to manufacture a new product. Two alternatives (Machine A and Machine B) are being considered.

Estimates for the two machines are:

	Machine A	Machine B
Initial cost	RM800,000	RM760,000
Useful life	5 years	5 years
Residual value at the end of 5 years	RM120,000	RM60,000
Annual profits (net of straight line depreciation)	RM100,000	RM80,000

The company has a cost of capital of 12% per annum.

Discount factors:

	10%	12%	15%	20%
Year 1	.909	.893	.870	.833
2	.826	.797	.756	.694
3	.751	.712	.658	.579
4	.683	.636	.572	.482
5	.620	.567	.497	.402

Required

(a) Evaluate **each** machine using the following methods:

- (i) Payback (7 marks)
- (ii) Net present value (work to nearest RM000) (4 marks)
- (iii) Internal rate of return (5 marks)
- (iv) Profitability index (2 marks)

(b) Recommend with reasons which, if either, machine the company should purchase. (2 marks)

(Total 20 marks)

QUESTION 5

A company has budgeted the following working capital ratios:

Raw material stock turnover	22.5 times
Finished goods stock turnover	20 times
Debtors collection period	40 days
Raw material creditors	36 days

Further information:

- (1) The debtors collection period is based on a budgeted Debtors figure of RM600,000.
- (2) All sales are on credit.
- (3) The company has a budgeted contribution to sales ratio of 40%
- (4) Raw material costs are budgeted as 80% of total variable costs
- (5) The company has budgeted fixed production costs for the year of RM760,000.
- (6) Assume each year is 360 days.

REQUIRED

- (a) Calculate the company's working capital cycle (in number of days). (6 marks)
- (b) Calculate the company's total working capital requirement (in RM000). (9 marks)
- (c) State what the consequences may be of having too much raw material stock. (5 marks)

(Total 20 marks)

QUESTION 6

A company makes two products, each of which passes through two operations, cutting and forming.

At present, production overhead is absorbed using a machine hour rate, but the company is considering using Activity Based Costing to absorb its production overheads.

Production details of the two products are:

	Product A	Product B
Cutting	4 operations per unit	3 operations per unit
Forming	2 operations per unit	3 operations per unit
Machine set up	1 per batch	1 per batch
Inspection	2 times per unit	2 times per unit
Machine hours	2 per unit	1.5 per unit
Budgeted production	5,000 units	4,400 units
Batch size	50 units	100 units.

Both products are made from the same raw material, which is issued on a single sheet basis, against a material requisition. One sheet of material will make 10 units of either product. No wastage of raw material is expected.

Budgeted costs for the period for each activity and their related cost drivers are:

	RM	Cost Driver
Cutting	49,800	Operations
Forming	46,400	Operations
Set up	2,160	Machine set ups
Inspection	22,560	Inspections
Stores	5,640	Material requisitions

REQUIRED

Calculate the production overhead per unit of each product:

- (a) Using a machine hour rate (calculated to two decimal places). (4 marks)
- (b) Using an activity based method of overhead apportionment and the cost drivers above. (16 marks)

(Total 20 marks)