HONG KONG ASSOCIATION FOR BUSINESS EDUCATION

HONG KONG DIPLOMA OF SECONDARY EDUCATION
EXAMINATION 2012/13

BUSINESS, ACCOUNTING AND FINANCIAL STUDIES
MOCK EXAMINATION

PAPER 2A
ACCOUNTING MODULE
(SUGGESTED ANSWER)

Section A

Question 1

Ben Co.
Income Statement for the year ended 31 December 2012

	$	$
Sales		27,500
Less Cost of goods sold:		
Opening inventory	--	
Add Purchases	35,500	
	35,500	
Less Closing inventory [($200 - $110) x $205]	18,450	17,050
Gross profit		10,450
Less Expenses:		
Rent and rates ($6,500 – $1,500+$1,000)	6,000	
Sundry expenses (1,800 – 1,200 x 3/12)	1,500	
Depreciation [(4,500-500)/4 x9/12]	750	8,250
Net Profit		2,200

Question 2a

(1) Current ratio = $\frac{\$383,000}{\$136,785}$ = 2.80

(2) Acid test ratio = $\frac{\$383,000 - \$200,000}{\$136,785}$ = 1.34

(3) Return on capital employed (year end) = $\frac{\$200,000}{\$646,215} x100\%$ = 30.95%

(4) Gross profit margin = $\frac{\$1,740,000}{\$3,000,000} x100\%$ = 58.00%

(5) Net profit margin = $\frac{\$200,000}{\$3,000,000} x100\%$ = 6.67%

(6) Accounts receivables collection period (days) = $\frac{\$176,000}{\$3,000,000} x365$ days = 21.41 days

Question 2b

Liquidity

These ratios are important indicators of the short-term viability of the company. A company may go into insolvency because of liquidity problems rather than poor profitability.
Compared with the industry average, both the current ratio and acid test ratio are lower than that. This may initially be considered as a sign of the deterioration in liquidity, and less liquid or near liquid assets in terms of its ability to meets its current liabilities. Management should investigate the reasons for the decline and try to keep current assets at an acceptable level.

Profitability

The gross profit margin and net profit margin are lower than industry average. The net profit margin is 6.67% indicated that ineffective internal cost control of the company in terms of salaries and other expenses. Management should investigate methods to further control costs.

Return on owners' equity is lower than industry average. This shows that company has room to improve how to utilize its assets to generate profit.

Management efficiency

Accounts receivables collection period is slightly higher than industry average. Management should consider offering discounts or other alternative in order to keep the accounts receivables collection period as short as possible.

<u>Question 3</u>

(a) The list of expenses in November can be classified into:

(i)	(1)
(ii)	(3)
(iii)	(2)
(iv)	(3)
(v)	(2)
(vi)	(1)

(b) Cost calculation:

	$	$ / m2 of Sum
Direct material	48+1.5	49.5
Direct labour Special supervision	0.8 x 40 0.1 x50	32 5
(1) Prime cost (round to nearest dollar)		87
Variable overhead Manufacturing overheads Administration cost	[($1.4M x 0.8)/5,000]x 0.8 [($1.4M x 0.2)/5,600]x 1 $498,400/ 5,600	179.2 50.0 89.0
(2) Total unit cost		405

(3) Sun has a margin = 0.25 of selling price; Costs = 0.75 of S.P.

405 / 0.75 = $540 / m^2

(c) Dr. Manufacturing overhead (i.e. 580 m^2 x $405=$234,900) $234,900

Cr. Inventory written off $234,900

Question 4 (a)

Cash Book

	$		$
Balance b/d	12,686	Payments	496,400
Receipts	450,000		
Balance c/d	33,714		
	496,400		496,400
(6) Accounts payables / Creditors	8,200	Balance b/d	33,714
(10) Dividends	43,223	(2) Bank charges	2,400
(4) Cheque overstated	360	(7) Subscription	6,100
		(9) Accounts receivable	3,100
		Balance c/d	6,469
	51,783		51,783

Question 4 (b)

Bank reconciliation statement as at 31 December 2012

	$	$
Balance as per bank statement		13,599
Add: (3) Uncredited deposit		8,450
		22,049
Less: (5) Unpresented cheque	9,580	
(8) Fixed deposit recorded twice	6,000	15,580
Balance as per Cash Book		6,469

Section B

Question 5(a)

Accounts Receivable

2012		$	2012		$
Jan 1	Balance b/f	61,400		Bank	285,000
	Credit sales	274,200	Jul 31	Balance c/f	50,600
		335,600			335,600

Accounts Payable

2012		$	2012		$
	Bank	435,400	Jan 1	Balance b/f	41,100
				Bank	8,600
Jul 31	Balance c/f	37,800		Purchases	423,500
		473,200			473,200

Question 5(b)

Bank

2012		$	2012		$
Jan 1	Balance b/f	52,800		Accounts payable	435,400
	Accounts receivable	285,000		Rent and rates	83,700
	Account payable - refund	8,600		General exp	44,580
	Cash Sales (net proceeds)	300,000	Jul 31	Balance c/f	82,720
		646,400			646,400

Cash

2012		$	2013		$
Jan 1	Balance b/f	1,700		Bank	300,000
	Sales proceeds	425,700		Drawings(8000 x 7)	56,000
				Advertising	9,000
				Cash lost	61,900
			Jul 31	Balance c/f	500
		427,400			427,400

Question 5(c)

Ko Kong Company

Income Statement for the seven months ended 31 July 2012

		$	$
Sales ($274200 + $425,700*)			699,900
Less	*Cost of goods sold:*		
	Opening inventory	51,500	
	Add Purchases	423,500	
		475,000	
	Less Closing inventory	(10,000)	(465,000)
			234,900
Gross profit			
Less	*Expenses:*		
	Rent and rates ($83,700 - $9,900 x 2**)	63,900	
	General expenses	44,580	
	Cash Lost	61,900	
	Advertising (9,000 x 7/12)	5,250	
	Depreciation on F & F [$250,200 - $180,000]	70,200	(245,830)
Net Loss			(10,930)

*** 〔465,000 – (274200 x 100/120)〕 x 180 / 100**

**** $9,000 x 6 (Jan – Jun's) + $9,900(July's)**

Question 6(a)

Two examples of using cost allocation in this question are consumables materials and indirect labour.

Question 6(b)

	Production departments		Services departments	
	Polishing	Hand Finishing	Maintenance	Warehouse
	($)	($)	($)	($)
Consumable materials	320,000	80,000	--	--
Indirect Labour	72,000	18,000	55,800	16,200
Power	416,000	41,600	31,200	31,200
Factory rent and rates (Area)	780,000	120,000	120,000	180,000
Canteen (number of employees)	77,250	92,700	25,750	10,300
Depreciation (NBV of Machinery)	496,000	62,000	--	62,000
	2,161,250	414,300	232,750	299,700
Re-apportionment:				
Warehouse	254,745	29,970	14,985	-299,700
Maintenance	198,188	49,547	-247,735	--
	2,614,183	493,817	nil	nil

The pre-determined overhead absorption rates:

Polishing Department (based on machine hours)

$2,614,183 / $4,759 = $549 per machine hour (Round to whole dollar)

Hand finishing department (based on direct labour hours)

$493,817 / $20,690 = $24 per direct labour hour (Round to whole dollar)

Question 6(c)

		Per unit of Super	1,000 units of Super
	$	$	$
Direct material ($28 + $0.8)		28.8	28,800
Direct Labour (0.7+0.8) x $45+0.2x1.2x$45		78.3	78.300
Prime costs		107.1	107,100
Overheads absorbed			
-- Polishing: (114 x 549) / 1,000	62.6		
-- Hand Finishing: (0.8 + 0.2) x 24	24.0	86.6	86,600
Production Costs		193.7	193,700
Mark-up (25% on cost)		48.4	48,425
Sale price (to one decimal place)		242.1	242,125
Total Batch Price			242,125 or
(Due to round off)			242,100

Question 6(d)

	Actual labour hours	Actual Overheads	Overheads absorbed	Over/Under-absorption
Hand Finishing department	20,805	$514,500	=$20,805 x 24 =$499,320	Under-absorbed by $15,180

Question 6(e)

Leisure Limited can consider to find the minimum cost of 'Super"

--Direct Material: not relevant to decision	= 0
--Direct Labour and Special O/T costs from above	= $78.3
--Indirect overheads	= 0
Total Minimum cost for a batch	= $78.3 x 1,000
	= $78,300

Question 7

(a1) **Profit and loss appropriation account for the year ended 31 December 2012**

	$	$		$	$
Net loss		50,000	Share of loss:		
Interest on capital:			Arron ($119,250 * 3/6)		59,625
Arran ($600,000 * 5%)	30,000		Barry ($119,250 * 2/6)		39,750
Barry ($400,000 * 5%)	20,000		Carmen ($119,250 * 1/6)		19,875
Carmen ($385,000 * 5%)	19,250	69,250			
		119,250			119,250

(a2) **Revaluation**

	$		$
Inventory	12,500	Motor vehicles	35,000
Allowance for doubtful debts	19,600	Loss on revaluation:	
Premises	200,000	Arran (x 3/6)	98,550
		Barry (x 2/6)	65,700
		Carmen (x 1/6)	32,850
	232,100		232,100

(a3) **Current account**

	Arron	Barry	Carmen		Arron	Barry	Carmen
	$	$	$		$	$	$
Balance b/d	40,000			Balance b/d		10,000	30,000
Share of loss	59,625	39,750	19,875	Int. on capital	30,000	20,000	19,250
Balance c/d			29,375	Capital	69,625		
				Balance c/d		9,750	30,000
	99,625	39,750	49,250		99,625	39,750	49,250

Capital

	Arron	Barry	Carmen	Daniel		Arron	Barry	Carmen	Daniel
	$	$	$	$		$	$	$	$
Loss on rev	98,550	65,700	32,850		Balance b/d	600,000	400,000	385,000	
Gd adj.*		15,000	12,500	10,000	Gd adj.*	22,500			
Current	69,625				Bank				110,000
Motor vehicles	75,000								
Amt due to									
Arron	40,000								
Loan	339,325								
Balance c/d		319,300	339,650	100,000					
	622,500	400,000	385,000	110,000		622,500	400,000	385,000	110,000

Workings:

*Goodwill adj.:

	Before adjustment ($)		After adjustment ($)	Net effect ($)
A	(30000-15000/2) =	22,500		
B	(20000-15000/3) =	15,000	30,000	
C	(10000-15000/6) =	7,500	20,000	
D			10,000	
	(60000-15000) =	45,000	60,000	Cr. Goodwill 15,000

Alternative Answer:

(a2) **Revaluation**

	$		$
Inventory	12,500	Goodwill	45,000
Allowance for doubtful debts	19,600	Motor vehicles	35,000
Premises	200,000	Loss on revaluation:	
		Arran (x 3/6)	76,050
		Barry (x 2/6)	50,700
		Carmen (x 1/6)	25,350
	232,100		232,100
Goodwill	60,000	Capital ~ Barry	30,000
		Capital ~ Carmen	20,000
		Capital ~ Daniel	10,000
	60,000		60,000

(a3) **Capital**

	Arron	Barry	Carmen	Daniel		Arron	Barry	Carmen	Daniel
	$	$	$	$		$	$	$	$
Loss on rev	76,050	50,700	25,350		Balance b/d	600,000	400,000	385,000	
Gd adj.*		30,000	20,000	10,000	Bank				110,000
Current	69,625								
Motor vehicles	75,000								
Amt due to Arron	40,000								
Loan	339,325								
Balance c/d		319,300	339,650	100,000					
	600,000	400,000	385,000	110,000		600,000	400,000	385,000	110,000

(b) **Statement of financial position as at 31 December 2012**

Non-current assets	$	$	$
Premises			1,000,000
Plant and machinery			450,000
Motor vehicles			140,000
			1,590,000
Current assets			
Inventory		112,500	
Accounts receivables	490,000		
Less: Allowance for doubtful debts	19,600	470,400	
Bank (-45,000 + 110,000)		65,000	
		647,900	
Less: Current liabilities			
Accounts payables	580,000		
Amount due to Arron	40,000	620,000	27,900
			1,617,900
Capital ~ Barry			319,300
Capital ~ Carmen			339,650
Capital ~ Daniel			100,000
			758,950
Current ~ Barry		(9,750)	
Current ~ Carmen		29,375	19,625
			778,575
Non-current liabilities			
Loan from Arron		339,325	
Loan from Barry		500,000	839,325
			1,617,900

SECTION C

Question 8

(a) Calculation of fixed manufacturing overheads absorption rate (OAR)

Budgeted fixed manufacturing overheads	$120,000
Budgeted level of production activity	10,000 units
Fixed manufacturing overheads absorption rate ($120,000/10,000)	$12 per unit

	$
Manufacturing overheads absorbed ($12 x 9,900)	118,800
Actual manufacturing overheads	130,000
Under absorbed manufacturing overheads	11,200

(b) **Income Statement for the year ended 31 December 2012**

	$	$
Sales ($100 x 9,900)		990,000
Less: Cost of goods sold		
Variable costs ($40 x 9,900)	396,000	
Manufacturing overheads absorbed ($12 x 9,900)	118,800	
Product costs	514,800	
Add: Fixed manufacturing overheads under absorbed	11,200	526,000
		464,000
Gross profit		
Less: Non-manufacturing costs		
Variable non-manufacturing costs ($20 x 9,900)	198,000	
Fixed non-manufacturing overheads	80,000	278,000
Net profit		186,000

(c) The net profit for the year ended 31 December 2012 would not be different because all the fixed manufacturing overheads incurred during the year are charged against the current-year profit either as cost of goods sold in absorption costing or period cost in marginal costing.

(d) Total fixed costs

	$
Original budgeted fixed manufacturing overheads	120,000
Original budgeted fixed non-manufacturing overheads	80,000
Original budgeted fixed overheads	200,000
Maintenance cost	4,500
Depreciation [($34,000 - $2,000)/2]	16,000
Total fixed costs	220,500

<u>Contribution per unit</u>

	$	$
Selling price per unit		100
Less: Variable costs per unit		
Variable manufacturing costs per unit [$40 x (1 - 5%)]	38	
Variable non-manufacturing costs per unit	17	55
Contribution per unit		45
Breakeven point (in units) for year ending 31 December 2013:		
Total fixed costs/Contribution per unit ($220,500 / $45)		4,900 units

(e) **Cost-Benefit Analysis for Acquisition of New Machine**

	$	$
<u>Costs</u>		
Machine cost		34,000
Maintenance cost ($4,500 x 2)		9,000
		43,000
<u>Benefits</u>		
Saving in variable manufacturing costs ($40 x 5% x 10,000 x 2)	40,000	
Residual value as at 31 December 2014	2,000	42,000
Net costs		1,000

Therefore, the machine should not be acquired.

(f) *Maintenance cost should be considered* because it is an incremental cost incurred because of machine acquisition.

Depreciation should not be considered because it is an allocation of sunk cost and has no impact on the cash flow.

Remark:
As far as the explanation is reasonable, full mark (1 mark for each item) can be given. However, if only “relevant costs” or “irrelevant costs” are mentioned without explanation, no mark will be given.

Total 20 marks

Question 9

(a)(1)

Peter Glynn Limited

Income Statement for the year ended 31December 2012

	$
Turnover	850,000
Cost of sales [$18,500 + $404,500 - ($20,000 – $14,500)]	417,500
Gross profit	432,500
Other revenues	20,500
Administrative expenses (W1)	(207,800)
Distribution expenses (W2)	(150,700)
Other operating expenses (W3)	(39,445)
Operating profit	55,055
Finance expenses ($100,000 x 15% + $150,000 x 5% x 8/12)	(20,000)
Profit before tax	35,055

		$
(W1)	Directors' remuneration	25,000
	Depreciation: F & F [($700,000 - $40,000) x 10%]	66,000
	Audit fee	4,300
	Sundry expenses	32,000
	Wages and salaries	80,500
		207,800

		$
(W2)	Carriage outwards	13,500
	Sales commission	70,200
	Depreciation: Motor ($180,000 x 5%)	9,000
	Marketing expenses	58,000
		150,700

		$
(W3)	Discount allowed	2,000
	Bad debts	40,390
	Allowance for doubtful debts ($7,045 – $41,000 x 10%)	(2945)
		39,445

(a)(2)

Peter Glynn Limited
Statement of Financial Position as at 31 December 2012

ASSETS	$
Non-current assets	
Property, plant and equipment (W4)	675,000
	675,000
Current assets	
Inventory ($20,000 - $14,500)	5,500
Accounts receivable (W5)	36,900
Deposits	40,000
Bank	32,310
Cash	9,030
	123,740
Total assets	798,740
EQUITY AND LIABILITIES	
Capital and reserves	
Share capital	350,000
Reserves (W6)	131,670
Total equity	481,670
Non-current liabilities	
4.5% debentures	150,000
15% Bank Loan	100,000
	250,000
Current liabilities	
Accounts payable	22,070
Accruals ($20,000 + $25,000)	45,000
	67,070
Total liabilities	317,070
Total equity and liabilities	798,740

		$	$
(W4)	Furniture and fittings, at cost	660,000	
	Less: Accumulated depreciation ($40,000 + $66,000)	(106,000)	554,000
	Motor Vehicles, at cost	180,000	
	Less: Accumulated depreciation ($50,000 + $9,000)	(59,000)	121,000
			675,000

		$
(W5)	Accounts receivable	81,390
	Less: Bad debts written off	(40,390)
		41,000
	Less: Allowance for doubtful debts ($41,000 × 10%)	(4,100)
		36,900

		$
(W6)	Reserves are made up of:	
	Retained profits	
	Balance b/f	12,000
	Add: Profit before tax	35,055
		47,055
	Share premium ($41,000 + $40,000)	81,000
	General reserve	3,615
		131,670

(b)

	Advantage	Disadvantage
(1) Right issue	Higher rate of success	Lower share price
(2) Secured Debentures	Lower rate of interest	Assets pledged
(3) Bank Loan	Flexible	Higher rate of interest

(Note: other related answers are acceptable.)

******END OF SUGGESTED ANSWER******