HONG KONG INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS

AND

HONG KONG ASSOCIATION FOR BUSINESS EDUCATION

HONG KONG DIPLOMA OF SECONDARY EDUCATION EXAMINATION 2019/20

BUSINESS, ACCOUNTING AND FINANCIAL STUDIES MOCK EXAMINATION

PAPER 2A ACCOUNTING MODULE

SUGGESTED SOLUTION

Section A

Question 1
(a)

Variable factory overheads per unit
= ($34,000,000 – $28,000,000) ÷ (50,000 – 40,000) units
= $6,000,000÷10,000 units
= $600 per unit (1)

Total fixed factory overhead cost
= $28,000,000 – $600 × 40,000
= $28,000,000 – $24,000,000
= $4,000,000 (1)

(2 marks)

(b)
Product cost per unit

	$	$	
Direct material cost ($6,000,000 ÷ 40,000)		150	0.5
Direct labour cost ($18,000,000 ÷ 40,000)		450	0.5
Prime cost		600	0.5
Variable factory overhead cost	600		0.5
Fixed factory overhead cost ($20 × 5)	100	700	0.5
		1,300	0.5

(3 marks)

Workings:
Budgeted total direct labour hours
= $18,000,000 ÷ $90 per direct labour hour
= 200,000 hours

The predetermined overhead absorption rate
= $4,000,000 ÷ 200,000 direct labour hours
= $20 per direct labour hour

(c)

	$	
Direct material cost ($150 × 45,000)	6,750,000	0.5
Direct labour cost	21,600,000	0.5
Variable factory overhead cost ($600 × 45,000)	27,000,000	0.5
Fixed factory overhead cost ($20 × 240,000)	4,800,000	0.5
	60,150,000	
Add: Under-absorbed fixed factory overhead cost	100,000	1
Cost of goods sold	60,250,000	

(3 marks)

Workings:

	$
Factory overhead cost over-absorbed ($4,800,000 – $4,000,000)	800,000
Actual factory overhead cost under-absorbed ($4,900,000 – $4,000,000)	900,000
Under-absorbed fixed factory overhead cost	(100,000)

<Total: 8 marks>

Question 2

(a)

Cash at bank

	2019		$	2019		$	
	Nov 6	Trade receivables:		Nov 1	Balance b/d	40,039	0.5
1		William	36,064	Nov 1	Cash ($2,000 - $820)	1,180	0.5
		($36,800 × 98%)		Nov 11	Drawings	500	0.5
0.5	Nov 30	Balance c/d	12,882	Nov 25	Trade payables:		
					Tony($7,300 × 99%)	7,227	1
			48,946			48,946	

(4 marks)

(b)

Bank Reconciliation Statement as at 30 November 2019

		$	
Adjusted cash at bank account balance *(Workings)*		(10,632)	1
Add	(iii) Unpresented cheque: #250126	3,465	1
		(7,167)	
Less	(ii) Incorrect debit entry made by the bank	16,500	1
		(23,667)	
Discrepancy needs to be investigated (balancing figure)		1	0.5
Overdraft balance as per bank statement		(23,666)	0.5

(4 marks)

Workings:

		$	
Unadjusted cash at bank account balance (from part a)		(12,882)	
Add	(iii) Stale cheque: #249541	2,500	0.5
		(10,382)	
Less	(i) Overdraft interest	250	0.5
Adjusted cash at bank account balance		(10,632)	

<Total: 8 marks>

Question 3

(a)

Services income

	2019		$	2019		$	
0.5	Dec 31	Profit and loss	31,250	Jan 1	Bank	15,000	
1	Dec 31	Unearned income c/d	8,750	Apr 1	Bank	20,000	0.5
				Oct 1	Bank	5,000	
			40,000			40,000	

(2 marks)

*Unearned income c/d = ($20,000 × 3/12) + ($5,000 × 9/12)
= $5,000 + $3,750
= $8,750

(b)

Hiring income

	2019		$	2019		$	
0.5	Dec 31	Profit and loss	171,000	Jan 1	Unearned income b/d ($30,000 × 9/12)	22,500	1
2	Dec 31	Unearned income c/d	91,500	Jan 1	Bank	60,000	
				Apr 1	Bank	90,000	0.5
				Jul 1	Bank	60,000	
				Oct 1	Bank	30,000	
			262,500			262,500	

(4 marks)

*Unearned income c/d = ($60,000×2/12) + ($90,000×3/12) + ($60,000×7/12) + ($30,000×12/15)
= $10,000 + $22,500 + $35,000 + $24,000
= $91,500

(c)

If a client delays the return of a hired robot at the end of the hiring period for 2 months, the hiring income of the 2 months should be recognised and be treated as income in arrears. (1)
The accounting concept to justify the suggested treatment is realisation as revenue should be recognized when services had been provided to the client, i.e. when it is earned. (1)

(2 marks)

<Total: 8 marks>

Section B
Question 4
(a)

Realization

Mark		$		$	$	Mark
0.5	Machinery ($560,000 – $112,000)	448,000	Bank loan ($68,000 × 40%)		27,200	1
0.5	Inventory	83,000	Cash at bank: machinery ($448,000 × 70%)		313,600	0.5
0.5	Trade receivables ($76,000 – $6,000)	70,000	Trade payable: discounts received ($98,000-$90,000)		8,000	0.5
1	Capital – Bob: commission ($313,600×20%)	62,720	Capital – Bob: inventory ($83,000 × 80% × 120%)		79,680	0.5
0.5	Cash at bank: legal fees	7,000	Cash at bank: inventory ($83,000 × 20%)		16,600	0.5
			Cash at bank: trade receivables ($76,000 × 90%)		68,400	1
			Loss on realization			
			Capital – Andy (5/10)	78,620		
			Capital – Bob (3/10)	47,172		1
			Capital – Charles (2/10)	31,448	157,240	
		670,720			670,720	

(8 marks)

(b)

Capital

Mark		Andy $	Bob $	Charles $		Andy $	Bob $	Charles $	Mark
0.5	Realization: Inventory		79,680		Balance b/d	136,000	239,000	20,000	0.5
	Realization:				Current account	36,000	49,000	5,000	0.5
0.5	Loss on realization	78,620	47,172	31,448	Realization - Commission		62,720		0.5
0.5	Capital – Charles	4,030	2,418		Capital – Andy			4,030	0.5
0.5	Cash at bank	89,350	221,450		Capital – Bob			2,418	
		172,000	350,720	31,448		172,000	350,720	31,448	

(4 marks)

<Total: 12 marks>

Question 5

(a)

	2018		2019	
(i) Gross profit ratio	= $3,200,000÷$5,000,000 × 100% = 64.00%	0.5	= $3,500,000÷$6,500,000 × 100% = 53.85%	0.5
(ii) Net profit ratio	= $600,000 ÷ $5,000,000 × 100% = 12.00%	0.5	= $419,000 ÷ $6,500,000 × 100% = $6.45%	0.5
(iii) Return on capital employed	= ($600,000 + $68,000) / $8,830,000 × 100% = 7.57%	0.5	= ($419,000 + $94,000) / $9,509,000 × 100% = 5.39%	0.5
(iv) Current ratio	= $600,000 ÷ $70,000 = 8.57:1	0.5	= $1,024,000 ÷ $620,000 = 1.65:1	0.5
(v) Quick ratio	= $200,000 ÷ $70,000 = 2.86 :1	0.5	= $774,000 ÷ $620,000 = 1.25:1	0.5
(vi) Trade receivables collection period	= $160,000 / $5,000,000 × 365 days = 11.68 days	0.5	= $674,000 / $6,500,000 × 365 days = 37.85 days	0.5
(vii) Trade payables repayment period	= $60,000 / $2,000,000 × 365 days = 10.95 days	0.5	= $120,000 / $2,850,000 × 365 days = 15.37 days	0.5

(7 marks)

Workings:

John Ltd
Income Statement for the year ended 31 March

	2018		2019	
	$	$	$	$
Sales		5,000,000		6,500,000
Less: Cost of goods sold				
Opening inventory	200,000		400,000	
Add: Purchases	2,000,000		2,850,000	
	2,200,000		3,250,000	
Less: Closing inventory	400,000	1,800,000	250,000	3,000,000
Gross profit		3,200,000		3,500,000
Add: Other revenues				
Rental income		400,000		320,000
		3,600,000		3,820,000
Less: Expenses				
Operating expenses	2,932,000		3,307,000	
Bank loan interest	68,000	3,000,000	94,000	3,401,000
Net profit		600,000		419,000

John Ltd
Statement of Financial Position as at 31 March

	2018			2019		
	$	$	$	$	$	$
Non-current assets						
Equipment, net book value			6,000,000			7,025,000
Motor vehicles, net book value			2,300,000			2,080,000
			8,300,000			9,105,000
Current assets						
Inventory		400,000			250,000	
Trade receivables		160,000			674,000	
Cash at bank		40,000			100,000	
		600,000			1,024,000	
Less: Current liabilities						
Trade payables	60,000			120,000		
Other payables	10,000	70,000		500,000	620,000	
Net current assets			530,000			404,000
			8,830,000			9,509,000
Financed by:						
Capital and reserves						
Ordinary share capital			7,000,000			7,000,000
General reserve			450,000			450,000
Retained profit			700,000			1,119,000
			8,150,000			8,569,000
Non-current liabilities						
10% Bank loan			680,000			940,000
			8,830,000			9,509,000

The correct amount of depreciation for equipment
= $6,000,000 × 15% + $2,000,000 × 15% × 3/12
= $900,000 + $75,000
= $975,000

The wrong amount of depreciation for equipment
= $6,000,000 × 20% + $2,000,000 × 20% × 3/12
= $1,200,000 + $100,000
= $1,300,000

The amount of depreciation written back
= $1,300,000 - $975,000
= $325,000

(b)

Profitability

- Gross profit ratio, net profit ratio and return on capital employed of John Ltd in 2019 were all lower than those in 2018. (0.5) This means that John Ltd was less profitable in 2019.(0.5)
- It may be caused by an increase in the cost of goods sold and bad control of expenditure. (1)

Liquidity

- Both current ratio and quick ratio deteriorated in 2019 compared with 2018. (0.5)
- This means that John Ltd may have difficulty in paying its short-term liabilities when due. (0.5)

(3 marks)

(c)

Limitations of ratio analysis:

- Ratio analysis fails to take into account qualitative information.
- It is not useful to compare the ratios of different businesses that have adopted vastly different accounting policies.
- Ratio analysis is based on past results and may not be useful for predicting future results of a business.
- There are no norms for some of the accounting ratios.
- Ratios can only highlight potential problems but not providing solutions.

(Any two or other acceptable answers) (1 mark each)

(2 marks)

<Total: 12 marks>

Question 6

(a)

	X	*R*	*V*	*Z*
Sales mix	10%	30%	20%	40%
Variable cost / Selling price	30%	40%	80%	50%
Contribution margin ratio	70%	60%	20%	50%
Annual fixed cost ($60,000 × 12)				$720,000
Weighted average contribution margin ratio (70% × 10% + 60% × 30% + 20% × 20% + 50% × 40%)				49%
Overall break-even point in sales revenue ($720,000 ÷ 49%)				$1,469,388

	X	*R*	*V*	*Z*
Annual break-even points in sales revenue for component	$146,939 ($1,469,388 × 10%)	$440,816 ($1,469,388 × 30%)	$293,878 ($1,469,388 × 20%)	$587,755 ($1,469,388 × 40%)
	1	1	1	1

(4 marks)

(b)

	$	$	
Direct cost of the special order:			
Direct materials			
- V048 ($2.7 × 2kg × 200)	1,080		1
- F894 ($5.42 × 3kg × 200)	3,252	4,332	1
Direct labour			
- Senior technician (2 hours × $25.2 × 200)	10,080		1
- Junior technician (3 hours × $11.5 × 200)	6,900	16,980	1
Overheads			
- Variable ($5 × 2.5 × 200)	2,500		1
- Fixed	6,000	8,500	1
Total relevant cost of the special order		29,812	
Contract price ($153 × 200)		30,600	0.5
Increase in profit		788	0.5

Alby **should accept** the order because there is an **increase in profit**. 1

(8 marks)

<Total: 12 marks>

Question 7

(a)

The Journal

		Dr.	Cr.	
		$	$	
(i)	Administrative expenses	50,000		0.5
	Accrued administrative expenses		50,000	0.5
(ii)	Rental income	240,000		1
	Unearned rental income ($420,000 × 6/14)		180,000	0.5
	Rental deposit ($420,000 × 2/14)		60,000	0.5
(iii)	Finance costs ($2,800,000 × 15% × 3/12)	105,000		1
	Accrued finance costs		105,000	1
(iv)	Cash in hand / Cash at bank	58,000		0.5
	Sales		58,000	0.5
(v)	Returns inwards	13,000		0.5
	Trade receivables		13,000	0.5
	Returns outwards	13,000		0.5
	Trade payables		13,000	0.5
(vi)	Selling and distribution expenses	90,000		0.5
	Accrued selling and distribution expenses		90,000	0.5
(vii)	Administrative expenses	29,000		1
	Inventory ($83,000 - $60,000 × 90%)		29,000	1
(viii)	Profits tax expenses	260,000		0.5
`	Tax payable		260,000	0.5

(12 marks)

(b)

Woody Ltd.
Income Statement for the year ended 31 March 2019

	$	$	$	
Sales [$5,863,000 + $58,000 (iv)]			5,921,000	0.5
Less: Returns inwards [$64,300 + $13,000 (v)]			77,300	0.5
			5,843,700	
Less: Cost of goods sold				
Opening inventory		376,000		0.5
Add: Purchases	2,639,500			0.5
Packing materials for import of goods	168,000			0.5
	2,807,500			
Less: Returns outwards [$83,500 - $13,000 (v)]	70,500	2,737,000		0.5
		3,113,000		
Less: Inventory loss	29,000			0.5
Closing inventory [$137,000 - $29,000(vii)]	108,000	137,000	2,976,000	0.5
Gross profit			2,867,700	
Add: Other revenue				
Rental income [$420,000 - $240,000 (ii)]			180,000	0.5
			3,047,700	
Less: Expenses				
Administrative expenses [$359,000 + $50,000 (i) + $29,000 (vii)]		438,000		1
Selling and distribution expenses [$477,000 + $90,000 (vi)]		567,000		1
Finance costs [$256,000 + $105,000 (iii)]		361,000	1,366,000	1
Profit before tax			1,681,700	
Less: Profits tax for the year (viii)			260,000	0.5
Profit after tax			1,421,700	

(8 marks)

<Total: 20 marks>

Question 8

(a)

Cash

		$		$	
0.5	Balance b/d (i)	9,500	Bank (vi)	108,750	0.5
0.5	Sales – cash sales ($420,000 – $244,085)	175,915	Sundry expenses (vii)	12,360	0.5
			Drawings (vii)	62,525	0.5
			Cash loss (Bal. fig.)	1,780	0.5
		185,415		185,415	

(3 marks)

(b)

Manfred
Income Statement for the year ended 31 December 2019

	$	$	
Sales (Workings 1)		420,000	0.5
Less: Cost of goods sold (Workings 2)			
Opening inventory	67,000		0.5
Add: Purchases	288,000		0.5
	355,000		
Less: Inventory loss (Balancing figure)	29,800		0.5
	325,200		
Less: Closing inventory (iii) ($180×15 + $300×35 + $250×20)	18,200	307,000	1
Gross profit		113,000	
Add: Other revenue			
Discounts received		14,617	0.5
		127,617	
Less: Expenses			
Sundry expenses	12,360		0.5
Rent and rates ($35,000 + $41,200 − $27,000)	49,200		0.5
Electricity and water ($4,840 − $5,600 + $8,000)	7,240		0.5
Wages and salaries	28,200		0.5
Depreciation — Fixtures and fittings (ii)	9,000		0.5
— Office equipment (ii)	9,248		0.5
Inventory loss (viii) ($29,800 × 3/4)	22,350		0.5
Cash loss (viii) ($1,780 × 1/2)	890	138,488	0.5
Net loss for the year		(10,871)	0.5

(8 marks)

(Workings 1: From (iv))

Sales = Normal cost of goods sold × (1 + mark-up)
= $300,000 × (1 + 40%)
= $420,000

(Workings 2: From (iii))

Actual cost of goods sold = Normal cost of goods sold + Normal stock loss
= $300,000 + [($500 - $300) × 35]
= $300,000 + $7,000
= $307,000

(c)

Manfred
Statement of Financial Position as at 31 December 2019

	$	$	$	
Non-current Assets				
Fixtures and fittings (net)			146,250	1
Office equipment (net)			36,992	1
			183,242	
Current Assets				
Inventory		18,200		0.5
Trade receivables		30,400		0.5
Insurance claim receivable [$890+($29,800 × 1/4)]		8,340		0.5
Prepaid rent		27,000		0.5
Bank		31,872		0.5
		115,812		
Less: Current Liabilities				
Trade payables	35,818			0.5
Accrued electricity and water	8,000	43,818		0.5
Net current assets			71,994	
			255,236	
Financed by:				
Capital				
Balance as at 1 January 2019			328,632	0.5
Less: Net loss for the year			10,871	0.5
			317,761	
Less: Drawings			62,525	0.5
Balance as at 31 December 2019			255,236	

(7 marks)

Workings:

Manfred
Statement of Affairs as at 1 January 2019

	$	$	$
Non-current Assets			
Fixtures and fittings (net) ($180,000 - $6,750 - $9,000 - $9,000)			155,250
Office equipment (net) ($85,000 - $12,750 - $14,450 - $11,560)			46,240
			201,490
Current Assets			
Inventory		67,000	
Trade receivables		28,400	
Prepaid rent		35,000	
Bank		33,000	
Cash		9,500	
		172,900	
Less: Current Liabilities			
Trade payables	40,158		
Accrued electricity and water	5,600	45,758	
Net current assets			127,142
			328,632
Financed by:			
Capital			
Balance as at 1 January 2019			328,632

Fixture and fittings

	$		$
Balance b/d	180,000	Balance c/d	180,000

Accumulated depreciation - Fixture and fittings

	$		$
Balance c/d	33,750	Balance b/d	24,750
		Depreciation	9,000
	33,750		33,750

Office equipment

	$		$
Balance b/d	85,000	Balance c/d	85,000

Accumulated depreciation – Office equipment

	$		$
Balance c/d	48,008	Balance b/d	38,760
		Depreciation	9,248
	48,008		48,008

Bank

	$		$
Balance b/d (i)	33,000	Rent and rates (vi)	41,200
Cash (vi)	108,750	Electricity and water (vi)	4,840
Trade receivables (vi)	242,085	Wages and salaries (vi)	28,200
		Trade payables (bal. fig.)	277,723
		Balance c/d (i)	31,872
	383,835		383,835

Trade receivables

	$		$
Balance b/d (i)	28,400	Bank (vi)	242,085
Sales – credit sales (bal. fig.)	244,085	Balance c/d (i)	30,400
	272,485		272,485

Trade payables

	$		$
Bank	277,723	Balance b/d (i)	40,158
Discounts received (v) ($277,723 × 5/95)	14,617	Purchases (bal. fig.)	288,000
Balance c/d (i)	35,818		
	328,158		328,158

Rent and rates

	$		$
Prepaid b/d	35,000	Profit and loss	49,200
Bank	41,200	Prepaid c/d	27,000
	76,200		76,200

Electricity and water

	$		$
Bank	4,840	Accrued b/d	5,600
Accrued c/d	8,000	Profit and loss	7,240
	12,840		12,840

(d)

Reasons to keep full set of accounting records:

- Serve as a control system to identify irregularities
- More informed decision making is possible
- Comparisons with results of previous years and other businesses are possible
- Information required by banks or other lenders is readily available

(Any two of the above or other acceptable answers) (1 mark each)

(2 marks)

<20 marks>

~ End of Paper ~

