Analysis and communication of accounting information

Questions and Answers (A level)

Question 1

March 2017

1 XY Limited produces annual financial statements in accordance with International Accounting Standards. Its non-current assets consist of both tangible and intangible assets.

REQUIRED

(a) Define an intangible asset in accordance with IAS 38.

[3]

Additional information

The following are the selected balances from the trial balance produced for the year ended 31 March 2016.

	\$
Revenue	680 000
Purchases	378 000
Distribution costs	70 152
Administrative expenses	145 267
Inventories at 1 April 2015	117 257
Provision for doubtful debts	1569
6% Debenture (2022)	150 000
Trade receivables	87 450
Trade payables	26 550

The directors of XY Limited also provided the following information:

- The inventories at 31 March 2016 were valued at cost, \$108543. This included a batch of inventory which had been valued at its cost price of \$50000. It can now only be sold for \$35000.
- 2 The debenture was issued on 1 October 2015 and no interest has been paid at 31 March 2016.
- 3 The provision for doubtful debts is to be increased to 2% of trade receivables. The increase is to be split equally between distribution costs and administrative expenses.
- 4 There was an amount of \$2480 outstanding for administrative expenses.
- 5 There was a prepayment of \$3635 for distribution costs.
- 6 The tax charge for the year is estimated to be \$12385.

REQUIRED

(b) Prepare the income statement for XY Limited for the year ended 31 March 2016.

Question	Answer	Marks
1(a)	An intangible asset is an identifiable non-monetary asset (1) without physical substance (1) from which future benefits are expected. (1)	3
1(b)	Revenue	13

Question	Answer	Marks
1(c)	Trade receivables turnover = $\frac{87450}{680000}$ · 365 = 47 days (1)of	4
	Inventory turnover ratio = $\frac{105400}{401714}$ · 365 = 95.77 days (1)of	
	Trade payables turnover = $\frac{26550}{378000}$ · 365 = 26 days (1)of	
	Working capital cycle = $47 + 96 - 26 = 117$ days (1)O F	
1(d)	It is taking longer to receive payment from customers than the allowed period. (1) There should be a review of the credit control system. (1) May consider discounts / incentives to encourage prompt payment. (1) Payment to suppliers is being made quicker than the allowed period. (1) This maintains a good relationship with the suppliers. (1) Future discounts / incentives should be protected. (1) Detrimental to cash flow (1) as payments are received 21 days after payments are made. (1) Inventory turnover of 95.77 days could be reduced to improve liquidity. (1)	5
	1 for decision + Max 4 for justification	
		25

March 2019

The following information for F Limited is available at 31 March 2018.

	\$
Closing inventory	240 000
Purchases	680 000
Sales revenue	994 000
Trade payables	52 100
Trade receivables	137 500

All purchases and sales were on credit basis.

The value of the closing inventory was 20% higher than at 1 April 2017.

Answer the following questions in the Question Paper. Questions are printed here for reference only.

(a) Calculate the working capital cycle in days.

[5]

Additional information

The company allows its customers 60 days credit.

The company is allowed 30 days credit by its suppliers.

The inventory turnover ratio for the previous year was 104 days.

The net working assets to revenue ratio has risen from 27.85% to 32.74%.

Trade payables had fallen and trade receivables had risen since 31 March 2017.

(b) Analyse the liquidity of F Limited.

[5]

(c) Analyse the change in the net working assets to revenue ratio of F Limited.

[6]

Additional information

Blair, an investor, wishes to invest in either F Limited or a competitor, C Limited. The market value of one ordinary share in both companies is \$1.50.

Blair's main requirement is a regular income from the investment.

Relevant information for the two companies is as follows:

	F Limited	C Limited
Gearing	20%	25%
Earnings per share	\$0.18	\$0.21
Dividend cover	3 times	4 times
Dividend per share	\$0.09	\$0.12

(d) Advise Blair in which company he should invest. Justify your answer.

[9]

Question	Answer	Marks
2(a)	Trade receivables turnover = $\frac{137500}{994000} \times 365 = 51$ days (1)	5
	Inventory turnover ratio = $\frac{220\ 000}{640\ 000}$ (1) × 365 = 126 days (1) OF	
	Trade payables turnover = $\frac{52100}{680000} \times 365 = 28$ days (1)	
	Working capital cycle = 51 + 126 – 28 = 149 days (1) OF	
2(b)	The company is receiving payments and making payments within the agreed period. (1)	5
	Payments are being made before receipt (1) so there will be an adverse effect on cash flow. (1)	
	Inventory turnover ratio has worsened from the previous year. (1) OF	
	Liquidity could be improved by reducing receivable days and inventory turnover ratio whilst increasing payables days. (1)	
	Accept other valid points.	
2(c)	The ratio has worsened from the previous year (1) because a greater proportion of the revenue is being used to fund the working capital cycle. (1)	6
	The increase in the closing inventory has contributed to this (1) and indicates greater inefficiency. (1)	
	The fall in trade payables (1) and rise in trade receivables (1) have also had the same effect.	
	Accept other valid points.	

Question	Answer	Marks
2(d)	The gearing of F Limited is lower which indicates less risk (1) although both are low geared companies. (1)	9
	Earnings per share of C Limited is higher which is better (1) indicating greater profits for each share held. (1)	
	Dividend cover of C Limited is higher which is better (1) indicating that there is a greater proportion of profits available for the payment of dividends. (1)	
	Dividend per share of C Limited is higher which is better (1) showing that a higher dividend is paid for each share owned. (1)	
	From the limited information available, I would advise Blair to invest in C Limited. (1)	
	Accept other valid points.	
	Award 1 mark for decision and max 2 marks for each ratio.	

November 2017

Summarised financial information for E Limited for the year ended 31 August 2016 is as follows:

Summarised Income Statement

	\$000
Revenue	8800
Cost of sales	5 0 4 5
Gross profit	3755
Expenses	2175
Profit from operations	1580
Finance costs	_235
Profit for the year	1345

Summarised Statement of Financial Position

Assets Non-current assets Current assets Total assets	\$000 4815 3210 8025
3 000 000 ordinary shares of \$0.50 each Share premium Retained earnings	1500 500 <u>2540</u> <u>4540</u>
Non-current liabilities – 8% debentures repayable 2020 Current liabilities – trade payables	2 935 <u>550</u> 8 025

Additional information

- 1 The market value of one ordinary share at 31 August 2016 was \$1.55.
- 2 Dividends paid for the year ended 31 August 2016 were \$325000.

REQUIRED

- (a) Calculate the following ratios to two decimal places:
 - (i) income gearing
 - (ii) gearing
 - (iii) dividend cover
 - (iv) price earnings [5]

Additional information

The directors of E Limited had expansion plans and on 1 September 2016 raised \$2000000 by issuing 10% debentures repayable in 2026. The profit from operations for the year ended 31 August 2017 was \$1600000 and the market price of one ordinary share on that date was \$1.30. Dividends paid for the year were \$275000.

REQUIRED

- (b) (i) Prepare an extract from the income statement for the year ended 31 August 2017, starting with the profit from operations.
 [2]
 - (ii) Prepare the equity and non-current liabilities section of statement of financial position at 31 August 2017.
- (c) (i) Calculate the same ratios as in part (a) at 31 August 2017 to two decimal places. [4]
 - (ii) Assess the effect of the new debenture issue on these ratios. [8]
- (d) Discuss two disadvantages to the company of the issue of the debentures. [4]

Question	Answer	Marks
4(a)(i)(ii) (iii)(iv)	Income gearing 235 000 / 1 580 000 14.87% (1) or 234 800 / 1 580 000 14.86% Gearing ratio 2 935 000 / (2 935 000 + 4 540 000) 39.26% (1) Dividend cover 1 345 000 / 325 000 4.14 times (1) Price earnings ratio* (2)	5
	*EPS = 1345/3000 = 0.45 (1) PE ratio = 1.55 / 0.45 = 3.44 (10F)	
4(b)(i)	\$000 Profit from operations 1600 Finance costs (200 000 + 235 000) (435) (1) Profit for the year 1165 (1) OF	2
4(b)(ii)	Equity and liabilities \$000 Ordinary share capital 1500 Share premium 500 Retained earnings 3430 Total equity 5430 (1)	2
	Non-current liabilities 8% debentures 2020 2935 10% debentures 2026 2000 4935 (1) both	
	*Retained earnings = 2 540 000 + (1 600 000 - [435 000 + 275 000]) = 3 430 000 or (2 540 000 + 1 165 000 - 275 000) = 3 430 000	
4(c)(i)	Workings 435 000 / 1 600 000 or 434 800 / 1 600 or 434 800 or 434 800 / 1 600 or 434 800 or 434 8	4

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	1 OPERATED	
Question	Answer	Marks
4(c)(ii)	Income gearing has increased (1) significantly from 2016 because of extra interest payable on debentures. This is worse (1) for a shareholder. This will reduce profit available to equity holders and therefore also impact other investment ratios. (1) (Max 2)	8
	The gearing ratio has also increased (1) because of the debenture issue being a greater increase than the increase in retained earnings. (1) This increases the risk (1) of the company because of the need to pay interest and repay debt. (1) (Max 2)	
	Dividend cover has stayed reasonably stable/increased (1) over the two years – as the profit available for distribution has decreased (1), so have the dividends. (Max 2)	
	The price earnings ratio has decreased (1). This is also a reflection of the market price of a share and the risk attached to it, depending on the market confidence. (1) (Max 2)	
4(d)	The issue of the debentures had an adverse (1) effect on the income gearing and gearing ratios. The company is now seen to be more risky. (1) The company may be perceived as being less attractive to investors. (1)	4
	The company has had to pay additional finance costs. (1) This has reduced profits available to distribute to shareholders. (1) This may have a negative effect on its liquidity. (1)	
	The company has a significant repayment commitment (1) and annual interest payment, (1) for which the directors need to plan if profits fall. (1)	
	Debentures may be secured on the assets of the company (1) which may mean the asset is sold to repay it, if necessary. (1)	
	1 for comment + 1 for development	
	2 marks · Max 2 points (1 mark for stating and 1 mark for developing)	

YGP Traders Limited has been trading for several years and has a year end of 31 December. It buys and sells a single product and makes all its transactions on a credit basis. It has a large bank overdraft and the directors are concerned about the working capital position of the business.

The following information is available for 2017:

- 1 Every month 1000 units were sold at a selling price of \$80 each.
- 2 Payment for half of all credit sales was received in the month following sale. The other half was received two months after sale.
- 3 The company purchased 14 000 units during the year.
- 4 The purchase price has been \$50 per unit for some years.
- 5 At 31 December, 3500 units were in inventory.
- 6 Trade payables at the end of the year amounted to \$62000.

Answer the following questions in the Question Paper. Questions are printed here for reference only.

(a) Cal	culate for 2017:	
(i)	revenue for the year	[1]
(ii)	cost of sales for the year	[1]
(iii)	trade receivables at the year end	[1]
(iv)	average inventory at cost price.	[3]
(b) Sta	(b) State what is measured by the working capital cycle.	
(c) Ca	culate the working capital cycle for the year.	[7]

Additional information

The directors of the business are considering a new strategy of increasing the selling price to \$90 per unit and offering 10% cash discount for payment in the month following sale. The directors believe that demand will be unchanged and that all customers will take the discount offered.

- (d) Calculate a revised working capital cycle for 2017 if this strategy had been implemented from the start of the year.
 [5]
- (e) Advise the directors whether or not they should proceed with this strategy. Justify your answer.
 [5]

Question	Answer	Marks
1(a)(i)	12 000 units · \$80 = \$960 000 (1)	1
1(a)(ii)	12 000 units · \$50 = \$600 000 (1)	1
1(a)(iii)	\$80 000 · 1.5 = \$120 000 (1)	1
1(a)(iv)	Opening inventory = 1500 units \cdot \$50 = \$75 000 (1) Closing inventory = 3500 units \cdot \$50 = \$175 000 (1) Average = \$125 000 (1) OF	3
1(b)	It calculates the number of days between paying for goods purchased (1) and receiving the money for goods sold (1).	2
	Or: The number of days to convert the net current assets (1) into cash (1)	
1(c)	Inventory turnover = $\frac{125000}{600000}$ (1) OF · 365 = 76.04 days / 77 days (1) OF	7
	Trade receivables collection = $\frac{120000}{960000}$ (1) OF · 365 = 45.63 days / 46 days (1) OF	
	Trade payables payment = $\frac{62000}{700000}$ (1) · 365 = 32.33 days / 33 days (1)	
	Working capital cycle = $77 + 46 - 33 = 90$ days (1) OF	
1(d)	New revenue = 12 000 at \$90 = \$1 080 000 (1) New trade receivables = \$90 000 (1)	5
	New trade receivables collection = $\frac{90000}{1080000}$ (1) OF · 365 = 30.42 days / 31 days (1) OF	
	New working capital cycle = $77 + 31 - 33 = 75$ days (1) OF or $90 - 46 + 31 = 75$ days (1) OF	

Question	Answer	Marks
1(e)	Strategy would reduce/improve the working capital cycle (1) OF by 15 days (1) OF	5
	The liquidity of the business has improved (1)	
	The strategy would reduce the overdraft (1)	
	The business would benefit from a lower working capital cycle (1)	
	Profitability would increase (1)	
	May not be realistic to expect no change in demand (1)	
	Not all customers may take the discount (1)	
	Accept other valid points.	
	Decision (1) and max 4 marks for discussion.	

May june 2019

V plc had capital of 450 000 ordinary shares of \$1 each. The following information was available at 31 December 2018.

- 1 The market price of one ordinary share was \$2.40.
- 2 Dividend yield was 5%.
- 3 Dividend cover was 2.5 times.

Answer the following questions in the Question Paper. Questions are printed here for reference only.

(a) Calculate the profit for the year ended 31 December 2018.

[3]

Additional information

The following information was also available for the year ended 31 December 2018.

- Sales revenue for the year was \$876000. All the sales were on credit and had earned a gross margin of 45%.
- 2 All purchases of goods were on credit.
- 3 Current assets at 31 December comprised inventory, trade receivables and cash at bank.
- 4 Current liabilities at 31 December comprised trade payables only. The current ratio was 3:1.
- 5 Other accounting ratios were:

Inventory turnover 60 days
Trade receivables turnover 50 days
Trade payables turnover 64 days

6 Other balances were:

1 January 2018	31 December 2018
\$	\$
70 000	70 000
74 000	?
78 105	?
	74 000

- 7 Non-current assets at 31 December 2018 were \$505272.
- (b) Prepare the statement of financial position at 31 December 2018. (Cash at bank is the balancing figure.)
 [15]
- (c) Calculate the price earnings ratio.

[2]

Additional information

T plc, a major competitor of V plc, had the following information for the year ended 31 December 2018.

Gross margin 42% Inventory turnover 65 days

(d) Assess the performance of V plc and T plc in terms of profitability and efficiency in managing inventory.
[5]

Question	Answer	Marks
2(a)	Profit for the year ended 31 December 2018	3
	Dividend yield = 5% Dividend per share = $$2.4 \times 5\% = 0.12 (1) Total dividend paid = $$0.12 \times 450\ 000 = $54\ 000$ (1) OF Dividend cover = 2.5 times	
	Profit = \$54 000 × 2.5 = \$135 000 (1) OF	
	Alternative approach (market value)	
	450000 shares \times \$2.40 = \$1 080 000 (1) Dividend = \$1 080 000 \times 5% = \$54 000 (1) OF Dividend cover = 2.5 times	
	Profit = \$54 000 × 2.5 = \$135 000 (1) OF	

Question	Answer	Marks
2(b)	∨ plc Statement of financial position at 31 December 2018	
	Non-current assets \$ 505 272	
	Current assets Inventory Trade and other receivables Cash at bank (balancing) Total assets W1 80 295 (4) 120 000 (2) 54 297 (1) OF 254 592 759 864	
	Equity and liabilities Equity Ordinary shares of \$1 each Share premium Retained earnings Total equity Equity and liabilities 450 000 70 000 155 000 (3) OF	
	Liabilities Trade and other payables Total equity and liabilities W4 84 864 759 864 (1) OF	

Question	Answer	Marks
2(b)	Workings:	15
	W1 Cost of sales = \$876 000 × 55% = \$481 800 (1) Opening inventory = \$78 105 Inventory turnover = 60 days Closing inventory = 2 × [(\$481 800 × 60) / 365] (1) OF - \$78 105 (1) = \$80 295 (1)OF	
	W2 Credit sales \$876 000 Trade receivables turnover 50 days	
	Trade receivables = $\frac{(\$876000 \times 50)}{365}$ (1) = \$120 000 (1) OF	
	## Retained earnings 1 January 2018	
	W4 Cost of sales = $\$876000 \times 55\% = \481800 Purchases = $\$481800 + \$80295 - \$78105 = \483990 (1) OF Trade payables turnover = 64 days	
	Trade payables = $($483990 \times 64) / 365 (1) OF = $84864 (1) OF$	
2(c)	Earnings per share = \$135 000 / 450 000 = \$0.30 (1) OF	2
	Price earnings ratio = $\frac{$2.40}{$0.30}$ = 8 (1) OF	
	Alternative approach (market value)	
	\$1 080 000 / \$135 000 (1) OF = 8 (1) OF	

Question	Answer	Marks
2(d)	The gross margin / profitability of \vee plc is better than that of T plc. (1) This suggests that the selling price of \vee plc is higher / the cost of sales is lower (1) than T plc.	5
	V plc is more efficient / has a better inventory turnover period than T plc. (1) This suggests that V plc can sell goods at a faster rate (1) or its inventory level is kept at a lower level / has lower storage costs. (1)	
	Accept other valid points. Max 5	

March 2019

The following information for F Limited is available at 31 March 2018.

	\$
Closing inventory	240 000
Purchases	680 000
Sales revenue	994 000
Trade payables	52 100
Trade receivables	137 500

All purchases and sales were on credit basis.

The value of the closing inventory was 20% higher than at 1 April 2017.

Answer the following questions in the Question Paper. Questions are printed here for reference only.

(a) Calculate the working capital cycle in days. [5]

Additional information

The company allows its customers 60 days credit.

The company is allowed 30 days credit by its suppliers.

The inventory turnover ratio for the previous year was 104 days.

The net working assets to revenue ratio has risen from 27.85% to 32.74%.

Trade payables had fallen and trade receivables had risen since 31 March 2017.

(b) Analyse the liquidity of F Limited. [5]

(c) Analyse the change in the net working assets to revenue ratio of F Limited. [6]

Additional information

Blair, an investor, wishes to invest in either F Limited or a competitor, C Limited. The market value of one ordinary share in both companies is \$1.50.

Blair's main requirement is a regular income from the investment.

Relevant information for the two companies is as follows:

	F Limited	C Limited
Gearing	20%	25%
Earnings per share	\$0.18	\$0.21
Dividend cover	3 times	4 times
Dividend per share	\$0.09	\$0.12

(d) Advise Blair in which company he should invest. Justify your answer.

[9]

Question	Answer	Marks
2(a)	Trade receivables turnover = $\frac{137500}{994000} \times 365 = 51 \text{ days (1)}$	5
	Inventory turnover ratio = $\frac{220\ 000}{640\ 000}$ (1) × 365 = 126 days (1) OF	
	Trade payables turnover = $\frac{52100}{680000} \times 365 = 28$ days (1)	
	Working capital cycle = 51 + 126 – 28 = 149 days (1) OF	
2(b)	The company is receiving payments and making payments within the agreed period. (1)	5
	Payments are being made before receipt (1) so there will be an adverse effect on cash flow. (1)	
	Inventory turnover ratio has worsened from the previous year. (1) OF	
	Liquidity could be improved by reducing receivable days and inventory turnover ratio whilst increasing payables days. (1)	
	Accept other valid points.	
2(c)	The ratio has worsened from the previous year (1) because a greater proportion of the revenue is being used to fund the working capital cycle. (1)	6
	The increase in the closing inventory has contributed to this (1) and indicates greater inefficiency. (1)	
	The fall in trade payables (1) and rise in trade receivables (1) have also had the same effect.	
	Accept other valid points.	

Question	Answer	Marks
2(d)	The gearing of F Limited is lower which indicates less risk (1) although both are low geared companies. (1)	9
	Earnings per share of C Limited is higher which is better (1) indicating greater profits for each share held. (1)	
	Dividend cover of C Limited is higher which is better (1) indicating that there is a greater proportion of profits available for the payment of dividends. (1)	
	Dividend per share of C Limited is higher which is better (1) showing that a higher dividend is paid for each share owned. (1)	
	From the limited information available, I would advise Blair to invest in C Limited. (1)	
	Accept other valid points.	
	Award 1 mark for decision and max 2 marks for each ratio.	

October 2018

The equity and reserves of J plc at 31 December 2017 were as follows:

	3
Ordinary shares of \$2 each	800 000
General reserve	50 000
Retained earnings	72 000
	922 000

The following information is also available.

- 1 Equity and reserves at 1 January 2017 were \$838 000.
- 2 On 1 January 2017, J plc issued a 10% debenture (2022–24) of \$100 000.
- 3 On 1 August 2017, an interim dividend of \$0.12 per share was paid.
- 4 On 31 December 2017, the general reserve was created.
- 5 On 31 December 2017, a final dividend of \$0.03 per share was proposed.
- 6 The market price of each share at 31 December 2017 was \$3.00.
- 7 There was no issue of ordinary shares during the year ended 31 December 2017.

Answer the following questions in the Question Paper. Questions are printed here for reference only.

- (a) Prepare the statement of changes in equity for the year ended 31 December 2017. A total column is not required.
 [5]
- (b) Calculate the following ratios:

(i)	earnings per share	[1]
(ii)	price earnings ratio	[1]
(iii)	dividend yield	[1]
(iv)	dividend cover	[1]
(v)	return on capital employed.	[2]

Additional information

The following industry averages have been provided for the year ended 31 December 2017:

price earnings ratio 7
earnings per share \$0.20
dividend cover 1.50
return on capital employed 12%

(c) Analyse the performance of J plc with reference to industry averages. Suggest reasons for the differences. [9]

Additional information

The directors of J plc are planning to expand the business in 2018. This will require an investment of \$300 000 and generate an additional annual profit of \$80 000. The directors are considering taking an 8% loan to fully finance this expansion.

(d) Advise the directors whether or not the company should take the loan. Justify your answer with reference to the impact on the company's return on capital employed and any other relevant information.

[5]