www.dynamicpapers.com

CAMBRIDGE
INTERNATIONAL EXAMINATIONS

JUNE 2002

GCE ADVANCED SUBSIDIARY AND ADVANCED LEVEL

MARK SCHEME

MAXIMUM MARK: 120

SYLLABUS/COMPONENT : 9706/4

ACCOUNTING

UNIVERSITY of CAMBRIDGE
Local Examinations Syndicate

www.dynamicpapers.com

Question 1 **Oltar plc**

(a) (i) interest cover: $^{1000}/_{250}$ = 4 times (2)

(ii) dividend cover: $^{750 - 120}/_{350}$ = 1.8 times (2)

(iii) earnings per share: $^{63\,000\,000}/_{400\,000}$ = $1.575 (2) (1 if $ sign omitted)

(iv) price earnings ratio: $^{30}/_{1.575}$ = 19 (2)

(v) dividend yield : $8.75 \times {}^{10}/_{30}$ = 2.9% (1) (1) (1)

(vi) gearing: (debentures = \$250k x $^{100}/_{12.5}$ = \$2 000k) (1)

$^{2\,000\,000 + 1\,500\,000}/_{4\,000\,000 + 900\,000 + 3\,500\,000} \times 100$ = 41.7% (2)

alternatively

$^{2\,000\,000 + 1\,500\,000}/_{4\,000\,000 + 900\,000}$ = 71.4% (2)

1A

(ii) (i) Interest cover shows how many times interest payments are covered by operating profit (1) It is an indication of the risk that future profits may be insufficient to cover interest payments. (1) The risk that interest payments might turn a small profit into a loss; (1) that future dividends might be at risk. (1)

(ii) Dividend cover shows how many times the ordinary dividend is covered by profit available for the dividend. (1) A low cover might indicate that future dividends are at risk if profitability declines. (1) Dividend cover may reflect the directors' dividend policy (1) A high cover usually indicates a conservative policy. (1)

(iii) Earnings per share shows how much profit after tax and preference dividends is attributable to each ordinary share (1) All profits after tax and preference dividends belong to the ordinary shareholders (1) It is a more informative measure of ordinary shareholders' fortunes than dividend cover. (1) Investors usually regard EPS as a convenient measure of the success of a company. (1)

(iv) Price earnings ratio relates the market price of a share to the earnings per share. (1) It may be regarded as the number of years' earnings that investors are prepared to pay for in the purchase price of a company's shares. (1) The higher the PER, the greater the confidence of investors in the ability of the company to maintain the EPS. (1)

(v) Dividend yield expresses the dividend as a percentage of the market price of a share. (1) This is should be of more interest to investors than dividend expressed as a percentage of the nominal value of each share, or the number of cents per share. (1)

(vi) Gearing is calculated as $^{\text{fixed cost capital}}/_{\text{equity plus fixed cost capital}}$ (1) where fixed cost capital includes long term loans (usually debentures) and preference share capital (1) and equity includes ordinary share capital plus all reserves. (1)

OR if the alternative answer is given to (a)(vi): $^{\text{Fixed cost capital}}/_{\text{equity}}$

Gearing is expressed as a percentage. (1)

Calculated in this way, 50 % is regarded as neutral gearing, > 50% is

www.dynamicpapers.com

considered as high and < 50% as low. (1)
Alternatively, gearing is sometimes calculated as $\frac{\text{fixed cost capital}}{\text{equity}}$.
Calculated in this way 100% is 'neutral', > 100% is 'high' and < 100% is 'low'. (1)
Highly geared companies may pose greater risk to ordinary shareholders because fixed cost capital must be rewarded in priority to holders of 'equity'. (1) The risk is that profits may decrease. (1) (Maximum 12 marks) 12

(b) (i) Interest cover has fallen by 27% (1) It is still satisfactory but if it falls too far the shareholders' dividends may be at risk. (1)
Dividend cover has fallen from 2.5 x to 1.8x (1) If profits are not at least maintained, the shareholders' dividends could be at risk. (1)
Price earnings ratio has declined from 22 to 19 (1) This seems to indicate that investors are less confident that the company will maintain its present profitability in future. (1)
Gearing has increased by 5% (1) It is still low but shows that the proportion of loan capital has increased. (1) (Refers to response in Part(a)) 8

(ii) Other evidence: ROCE (1)
Investigate prior years (before 2001) to ascertain trends. (1)
Check inter-firm comparisons if possible (1)
See directors' reports (1) for recommended dividends, (1) overview of company's performances (1) positions (1) future trading etc. (1)

See the auditors' report for any qualifications arising from audit: (1) opinions as to company's 'going concern' status, (1) dependence upon continuation of bank loans/overdrafts or provision of additional finance. (1) 6

Accounting (i.e other than) investment ratio not acceptable unless linked to Trend Analysis or Inter-firm Comparison

QUESTION 2

(a) (i)

Joloss plc
Balance Sheet immediately after capital reduction on 1 May 2002

	$'000s	$'000s
Tangible fixed assets (650 − 150) (1) (1)		500 (1) (Total if not corrupted by extraordinary item (5))
Current assets		
Stock (32 − 10) (1) (1)	22	
Debtors (80 − 16) (1)	64	
Bank	6	
	92	
Creditors: amounts falling due within one year	42	50
		550 (1) (Total if not corrupted by extraordinary items & expenses)
Ordinary shares of $0.55		550 (1) (Book or creditors) 10

(+1 if not corrupted by extraordinary items & expenses)

(ii) The net asset value of Joloss plc's shares before capital reduction was $\frac{1000 - 450}{1000}$ = $0.55. (1)
The capital reduction merely recognises the reality of the situation. (1)
Reduction in the nominal value of each share does not entail any further loss to the shareholders. (1)
The shareholders will stand to receive dividends equal to $0.25 per share as soon as the company realises the profits forecast by the directors. (1)
If the shareholders had rejected the scheme, they would have had to wait for over three years before the expected profits would have eliminated the debit balance on the P & L account to enable dividends to be paid. (1)
(Other points may be acceptable)
(Maximum 5 marks) 5

www.dynamicpapers.com

(b) (i)

Workings		Milligan	Bentine	
Net receipts $000	Year 1	70 – (50 – 25) = 45 (1)(1)	72 – (60 – 33) = 45 (1)(1)	or 44.5
	2	80 – (60 – 25) = 45 (1)(1)	84 – (70 – 33) = 47 (1)(1)	or 46.5
	3	90 – (65 – 25) = 50 (1)(1)	90 – (75 – 33) = 48 (1)(1)	or 47.5
	4	90 – (70 – 25) = 45 (1)(1)	100 – (80 – 33) = 53 (1)(1)	or 52.5

Note: The first mark in each pair is given for the correct statement of receipts less costs; the second mark is for the depreciation adjustment. If any other adjustment is made (e.g. for interest payable) the first mark should not be awarded.

Answer

		Milligan		Bentine	
		Exp/receipts	NPV	Exp/receipts	NPV
Factor (10%)	Year	$	$	$	$
1	0	(100 000)	(100 000)	(130 000)	(130 000)
0.909	1	45 000 (2)	40 905	45 000 (2)	40 905
0.826	2	45 000 (2)	37 170	47 000 (2)	38 822
0.751	3	50 000 (2)	37 550	48 000 (2)	36 048
0.683	4	45 000 (2)	30 735	53 000 (2)	36 199
			46 360 (1)		21 974 (1)

or

18

(ii) Choose Milligan (1) Greater NPV (1) 2

(iii) IRR for Milligan

20%	Year 0	1	(100 000)	
	1	0.833	37 485	one error allowed.
	2	0.694	31 230	
	3	0.579	28 950	
	4	0.482	21 690	
		NPV	19 355 (1)	

(130 000) (130 000)
44 500 (2) 40 451
46 500 (2) 38 409
47 500 (2) 35 673
52 500 (2) 35 858
20 391 (1)

(1) (1) (1)
10% + (10% X 46 360/(46 360 – 19 355)) = 27.2% (1)
DF DF

Model must be correct.

5

www.dynamicpapers.com

Question 3

Tontaws

(a) (i) Budgeted manufacturing, trading and profit and loss statement for the production of 250 000 Tontaws

	$	
Direct materials (250 000 x 2 x $4)	2 000 000	(1)
Direct labour (250 000 x 2/3 x $18)	3 000 000	(1)
Direct production overheads (166 666.67 x $6)	1 000 000	(1)
Total variable expenses	6 000 000	
Indirect fixed overheads (166 666.67 x $21)	3 500 000	(1)
Cost of production	9 500 000	
Factory profit (20% of $9 500 000)	* 1 900 000	(1)
Transferred to trading statement	11 400 000	
Sales (250 000 x $104)	26 000 000	(1)
Less cost of goods sold	11 400 000	(1)
Gross profit	14 600 000	
Administration and selling	7 500 000	(1)
Net profit on trading	7 100 000	(1)
Add factory profit	* 1 900 000	(1)
Total net profit	9 000 000	

* Factory profit must be shown to gain marks

Be flexible over presentation (format)

Allow mark for Cost of goods sold (1) and Net profit on trading (1) if format adopted does not show Hence) 10

(ii) Contribution per unit $^{26\,000\,000 - 6\,000\,000}/_{250\,000} = \$80$

Break even point: $^{3\,500\,000 + 7\,500\,000}/_{80} = 137\,500$ units (1) or $14 300 000

Margin of safety $^{250\,000 - 137\,500}/_{250\,000} \times 100 = 45\%$ (1) (must be percentage) 2

(b) (i) Flexed budget (based on 256 000 units)

	$	$	
Sales (256 000 x $104)		26 624 000	(1)
Direct materials (256 000 x 8)	2 048 000		(1)
Direct labour (256 000 x 2/3 x $18)	3 072 000		(1)
Direct o'heads (variable) (256 000 x 2/3 x $6)	1 024 000		(1)
Total variable expenses	6 144 000		
Fixed overheads (3 500 000 + 7 500 000)	11 000 000	17 144 000	(1)
Net profit		9 480 000	

5

(ii) Actual

	$	$	
Sales (256 000 x $107.5)		27 520 000	(1)
Direct materials	2 090 000		(1)
Direct labour	3 656 250		(1)
Direct o'heads (variable) (256 000 x 2/3 x $6)	1 024 000		(1)
Total variable expenses	6 770 250		
Fixed overheads (3 650 000 + 7 200 000)	10 850 000	17 620 250	(1)
Net profit		9 899 750	

5

(c) (i) Quantity variance $(9 480 000 - 9 000 000) $480 000 (F) (1)

(ii) sales volume: 6 000 x $104 $624 000 (F) (1)

(iii) sales price 256 000 x $3.50 $896 000 (F) (1)

(iv) direct materials usage (512 000 - 550 000)$4 $152 000 (A) (1)

(v) direct materials price $(4.00 - 3.80)x550 000 $ 110 000 (F) (1)

(vi) direct labour efficiency (170 666.67 - 187 500)$18 $303 000(A) (1)

(vii) direct labour rate $(18.00 - 19.50)x 187 500 $281 250 (A) (1)

If $ signs omitted have the marks queried and rounding to nearest whole mark 7

(d) Contribution per unit $^{20\,749\,750}/_{256\,000} = 81.05$ (1)

Break even point = $^{12\,950\,000}/_{81.05} = 159778$ units (1) 2

www.dynamicpapers.com

(e) Reconciliation of budgeted profit with actual profit

	$	
Budgeted profit	9 000 000	(1) (must be as in (a)(i) OF)
Add Quantity variance	480 000	(1)
Sales price variance	896 000	(1)
Direct materials price variance	110 000	(1)
Reduction in Selling and administration	300 000	(1)
	10 786 000	
Deduct Direct materials usage variance	(152 000)	(1)
Direct labour efficiency variance	(303 000)	(1)
rate variance	(281 250)	(1)
Fixed production overhead	(150 000)	(1)
Actual profit	9 899 750	

9