## Cambridge International AS \& A Level

## ACCOUNTING

Paper 3 Structured Questions
May/June 2022
INSERT
3 hours

## INFORMATION

- This insert contains all of the required information and questions. The questions are provided in the insert for reference only.
- You may annotate this insert and use the blank spaces for planning. Do not write your answers on the insert.


## Section A: Financial Accounting

## Question 1

## Source A1

MN Drama Club was formed in 2017 with the objective of promoting modern performances. The treasurer of the club resigned on 31 December 2021. The chairman prepared a draft income and expenditure account which was based on the receipts and payments account.

Draft Income and Expenditure account for the year ended 31 December 2021

|  | $\$$ | $\$$ |
| :--- | ---: | ---: |
| Subscriptions |  | 40400 |
| Tuition fees |  | 8000 |
| Ticket income from performances |  | 14200 |
| Donation | 7500 |  |
|  |  | 70100 |
| Expenses for performances | 2000 |  |
| Office equipment (first payment) | 30100 |  |
| Administrative expenses | 13200 |  |
| Heating and lighting | 16000 |  |
| Building extension | 4600 |  |
| Building maintenance |  | $\underline{77400}$ |
|  | $\underline{(7300)}$ |  |

The draft income and expenditure account had been presented to a member of the club who is an accountant.

Further information was available.
1 There is a great demand for after-school tutorial classes in the local community. In October 2021 the club started running after-school tutorial classes. The club targeted the classes at children from poor families. A maximum of 20 children could join these classes. Children were required to join as student members of the club and pay the following fees in advance:
i student membership fee of $\$ 100$, which is one-third of an ordinary member's subscription
ii a tuition fee of $\$ 400$ covering the period from 1 October 2021 to 31 May 2022.
Student membership fees paid by children are included in subscriptions in the draft income and expenditure account.

The tuition fee is refundable on a monthly basis if the student withdraws. The student membership fee is non-refundable.

The tutors are volunteers and have experience in teaching.
The classes were popular and were fully booked.

2 Information relating to ordinary members' subscriptions at 31 December 2021 and at 31 December 2020 is as follows:

|  | 31 December | 31 December |
| :--- | :---: | :---: |
|  | 2021 | $\mathbf{2 0 2 0}$ |
| Number of members paid in advance | 0 | 9 |
| Number of members in arrears | 24 | 4 |

Information relating to non-current assets:

Cost at 31 December 2020
Accumulated depreciation at 31 December 2020
Depreciation method
Annual rate

| Building | Equipment |
| :---: | :---: |
| $\$$ | $\$$ |
| 200000 | 120000 |
| 110000 | 85000 |
| Straight-line | Reducing balance |
| $10 \%$ | $20 \%$ |

A full year's depreciation is charged in the year of purchase of the asset.
An item of office equipment was purchased on credit during the year. The debt was repayable in three equal instalments at intervals of four months, with the first payment made in October 2021.

4 During the year a member donated $\$ 7500$ which is to be used to sponsor the club's participation in a national event for the coming five years.

5 Other prepaid and accrued expenses at 31 December 2021 and at 31 December 2020 are as follows:

|  | $\begin{gathered} 31 \text { December } \\ 2021 \\ \$ \end{gathered}$ | $\begin{gathered} 31 \text { December } \\ \mathbf{2 0 2 0} \\ \$ \end{gathered}$ |
| :---: | :---: | :---: |
| Accrued |  |  |
| Administrative expenses | 9000 | 6200 |
| Heating and lighting | - | 1500 |
| Prepaid |  |  |
| Heating and lighting | 700 | - |

6 Cash at bank at 31 December 2021 amounted to $\$ 6400$.

## Answer the following questions in the question paper. Questions are printed here for reference only.

(a) State two reasons why a club needs to have a clear objective.
(b) Explain how the tuition fees of $\$ 8000$ should be treated in the revised financial statements of MN Drama Club. Support your answer with reference to the relevant accounting concept. [4]
(c) Prepare the revised income and expenditure account for the year ended 31 December 2021

## Additional information

The chairman has received many requests from local parents for the tutorial classes because the fee charged by the club is $50 \%$ lower than other organisations. He has a plan to admit 60 students in October 2022. To increase the capacity, he estimates that an expenditure of $\$ 30000$ would be incurred in an extension of the club's building.
(d) Advise the chairman whether or not he should carry out the plan. Justify your answer.

## Question 2

## Source A2

AB plc is a trading company. The draft profit from operations for the year ended 31 December 2021 was $\$ 98000$ before the following items were considered.

1 On 1 September 2021, AB plc issued a $6 \%$ debenture for $\$ 200000$. Interest is payable half-yearly.
2 Revaluation reserve at 1 January 2021, \$72000, arose from the revaluation of a property on 1 January 2017. The property was purchased on 1 January 2013. It is depreciated using the straight-line method over its useful life of 40 years with no residual value.

On 1 January 2017, the market value of the property was $\$ 432000$.
On 1 January 2021, the property was revalued again at $\$ 296000$. No accounting entries had been made to record this.

The book-keeper had continued to provide depreciation for the property based on the value of $\$ 432000$.

3 In the financial statements of 2020, a non-current asset was wrongly classified, with the effect that depreciation had been overcharged by $\$ 20000$ in 2020 and $\$ 14000$ in 2021.

4 AB plc sells goods at a mark-up of $60 \%$. In December 2021, defective goods with a sales value of $\$ 28000$ were returned by customers. The cost value of the returned goods had been included in inventory at 31 December 2021. It is expected that if $\$ 6000$ is incurred to repair the returned goods, they can be sold at $80 \%$ of normal selling price.

Answer the following questions in the question paper. Questions are printed here for reference only.
(a) Prepare a statement to show the 'profit for the year' for the year ended 31 December 2021.
(b) Explain the accounting treatment of the following, with reference to the relevant international accounting standards (IAS):
(i) item 3
(ii) item 4 .

## Additional information

Equity of AB plc at 31 December 2020 was as follows:

## \$

Ordinary share capital (\$1 shares)
500000
Share premium 86000
Revaluation reserve 72000
Retained earnings $\quad \underline{192000}$
850000

During the year ended 31 December 2021, the following transactions took place.
1 On 1 February, the final dividend of $\$ 0.08$ per share was paid from the 2020 profit.
2 On 5 March, a bonus issue of one ordinary share for every ten ordinary shares held was made. It is the policy of the company to keep its reserves in the most flexible form.

3 On 1 June, 100000 new ordinary shares were offered to the public at $\$ 1.80$ each. AB plc received subscriptions for 80000 shares which were fully paid.

4 On 1 September, an interim dividend of $\$ 0.02$ per share was paid on all shares held at 31 March 2021.

5 On 31 December, a final dividend of $\$ 0.09$ per share was proposed on all shares held at 31 December 2021.
(c) State one difference between a rights issue and a bonus issue of shares.
(d) Prepare the statement of changes in equity for the year ended 31 December 2021. A total column is not required.

## Question 3

## Source A3

The directors of K plc provide the following information at 31 December 2021.

|  | $\$$ |
| :--- | ---: |
| Profit for the year | 114000 |
| Dividend paid | 90000 |
| Ordinary share capital (\$1 shares) | 600000 |
| Retained earnings at 1 January 2021 | 38000 |
| General reserve | 75000 |
| Revaluation reserve | 80000 |
| 8\% debenture (2025) | 150000 |

The market price of one ordinary share on 31 December 2021 was $\$ 2.40$.
Answer the following questions in the question paper. Questions are printed here for reference only.
(a) Explain two ways in which accounting ratios may be used by potential investors to assess the performance of a business.
(b) Calculate to two decimal places the following:
(i) price earnings ratio
(ii) dividend yield
(iii) income gearing
(iv) gearing ratio
(v) return on capital employed.

## Additional information

The directors are considering declaring a proposed dividend of $\$ 0.20$ per ordinary share. Due to the low level of retained earnings at 31 December 2021, they ask the accountant whether the dividend can also be paid out of other reserves.
(c) Discuss how the accountant should reply to the directors.

## Additional information

The directors are thinking of investing $\$ 100000$ in a new project in 2022. The project will generate a profit of $\$ 24000$ before interest in 2022. They have two options to raise $\$ 100000$ :
option 1 : issue of new ordinary shares
option 2: issue of a further $8 \%$ debenture.
(d) Advise the directors which option they should choose. Justify your answer.

## Question 4

## Source A4

Alan and Bobby were in partnership sharing profits and losses in the ratio of 3:2. The partnership's statement of financial position at 31 March 2022 was as follows:

|  | \$ | \$ |
| :---: | :---: | :---: |
| Non-current assets |  |  |
| Land and buildings | 350000 |  |
| Equipment | 158000 |  |
| Motor vehicles | 57000 | 565000 |
| Current assets |  |  |
| Inventory | 75000 |  |
| Trade receivables | 93000 |  |
| Bank | 52000 | 220000 |
|  |  | 785000 |
| Capital accounts |  |  |
| Alan | 400000 |  |
| Bobby | 320000 | 720000 |
| Current accounts |  |  |
| Alan | (6000) |  |
| Bobby | 25000 | 19000 |
| Current liabilities |  |  |
| Trade payables |  | 46000 |
|  |  | 785000 |

A company, MM Limited, acquired Alan and Bobby's partnership business on 1 April 2022. The company acquired all the assets except the bank account and a motor vehicle. The motor vehicle was taken over by Alan at the value of $\$ 18000$. The partnership paid $\$ 45000$ in full settlement of trade payables.

The value of assets taken over by MM Limited was:

|  | $\$$ |
| :--- | ---: |
| Land and buildings | 410000 |
| Equipment | 132000 |
| Motor vehicles | 30000 |
| Inventory | 70000 |
| Trade receivables | 88000 |
|  | $\underline{730000}$ |

The goodwill of the partnership was also agreed at $\$ 40000$. The purchase consideration was settled by $\$ 1$ ordinary shares in MM Limited at the value of $\$ 1.40$ per share. The shares were split between Alan and Bobby equally.

## Answer the following questions in the question paper. Questions are printed here for reference only.

(a) Prepare a statement showing the partners' share of profit or loss on realisation.
(b) Prepare the partners' capital accounts in columnar form to show the closing entries.
(c) Prepare the journal entries in MM Limited's books to record the acquisition of the partnership business.
(d) Define the term 'intangible asset'.
(e) Discuss the reasons why the purchase consideration was more than $\$ 730000$.
(f) Advise the directors whether or not they should have paid more than $\$ 730000$ for the partnership. Justify your answer.
[Total: 25]

## Section B: Cost and Management Accounting

## Question 5

## Source B1

The directors of $V$ Limited are concerned about the company's future cash position. They have asked the management accountant to prepare a cash budget for the 3 months ending on 31 August 2022.

The following information is available.

1 Actual sales
April \$

May
234000
Budgeted sales
June 195000

July
August
September

207000
228000
216000

2 All sales are on credit. All customers pay two months after purchase.
3 Goods are sold at a mark-up of $50 \%$. Goods are purchased one month before sales. $60 \%$ of the purchases are paid for in the month of purchase to get a $2 \%$ cash discount. The remainder is paid in the following month.

4 V Limited keeps no inventory at the end of each month apart from the goods purchased for the following month's sales.

5 Wages of $\$ 50000$ and overheads of $\$ 20000$ are paid in the month in which they are incurred. Wages are expected to increase by 10\% from 1 July 2022.

6 Rent, \$60000 per annum, is payable half-yearly in advance in July and January.
7 The balance at bank on 1 June 2022 is expected to be $\$ 33000$.
Answer the following questions in the question paper. Questions are printed here for reference only.
(a) Explain one purpose of preparing a cash budget.
(b) Prepare the cash budget for each of the three months ending 31 August 2022.
(c) Prepare the budgeted income statement for the three month period ending 31 August 2022.

## Additional information

The directors suggest a new credit policy to improve the cash position of the company for the three months ending 31 August 2022. A 3\% cash discount is to be allowed to customers who pay one month after sales. It is estimated that $50 \%$ of the customers will take the cash discount. This new credit policy would apply to all sales made in May and thereafter.
(d) Calculate the effect of the new credit policy on the company's cash receipts for each of the three months ending 31 August 2022.
(e) Comment on the effect of the new credit policy on the company's profitability for the three month period ending 31 August 2022. Support your answer with calculations.
[Total: 25]

## Question 6

## Source B2

The directors of M Limited plan to buy a machine for a new product at the cost of $\$ 160000$. It has a useful life of four years with no residual value.

The number of units produced and sold are expected to be as follows.

| Year 1 | Year 2 | Year 3 | Year 4 | Total |
| :---: | :---: | :---: | :---: | :---: |
| 5000 | 7500 | 8500 | 4200 | 25200 |

The unit selling price is $\$ 28$ and the variable cost is $\$ 10$ per unit. Annual fixed costs including depreciation are $\$ 90000$ up to the level of 6500 units. The fixed costs will increase by $\$ 10000$ each time the production level increases by up to 1500 units.

Answer the following questions in the question paper. Questions are printed here for reference only.
(a) Calculate the net cash flows for each year throughout the life of the machine.

## Additional information

The cost of capital is $10 \%$. Relevant discount factors are:

|  | $10 \%$ | $16 \%$ |
| :--- | :---: | :---: |
| Year 1 | 0.909 | 0.862 |
| Year 2 | 0.826 | 0.743 |
| Year 3 | 0.751 | 0.641 |
| Year 4 | 0.683 | 0.552 |

(b) Calculate for the proposed purchase:
(i) the net present value (NPV)
(ii) the internal rate of return (IRR).
(c) Advise the directors whether or not the machine should be purchased. Justify your answer.

## Additional information

The directors decide that the NPV method should be adopted. One of the directors has concerns about the total sales target. To achieve the total sales of 25200 units, he has the following suggestion.

1 The selling price should be reduced by $\$ 1$.
2 Advertising costs of $\$ 8000$ should be incurred in both Year 1 and Year 3.
3 The units produced and sold for each year should be the same. This would also keep the fixed cost to its minimum.
(d) Explain what is meant by the term 'sensitivity analysis' for investment appraisal.
(e) Assess the impact of the director's suggestion on the decision to buy the new machine. Support your answer with calculations.
[Total: 25]

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