

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD

UNIVERSITY OF MALTA, MSIDA

MATRICULATION EXAMINATION
INTERMEDIATE LEVEL
MAY 2016

SUBJECT:	ACCOUNTING
DATE:	26 th April 2016
TIME:	9:00 a.m. to 12:05 p.m.

THIS PAPER CONTAINS THREE SECTIONS. FOLLOW THE INSTRUCTIONS BELOW.

Section A

Answer question 1. This question carries 24 marks.

Section B

Answer any TWO questions from this Section. Each question carries 18 marks.

Section C

Answer any TWO questions from this Section. Each question carries 20 marks.

Section A

Answer Question 1. This question carries 24 marks.

1. Osiris Manufacturing Co. Ltd. extracted the following trial balance for the year ended 31 March 2016:

	€	€
Premises	200,000	
Plant & Machinery	90,000	
Motor Vehicles	48,000	
Office Equipment	54,000	
Loose Tools	12,800	
Depreciation Allowance (1 April 2015): Premises		13,440
Plant & Machinery		38,000
Motor Vehicles		26,100
Equipment		16,800
Sales		338,000
Purchases of Raw Materials	68,000	
Purchases of Loose Tools	3,400	
Direct factory wages	52,000	
Royalties	8,200	
Supervisors' Wages	14,200	
Maintenance of Machinery	8,400	
Electricity	9,600	
Power for Machinery	6,200	
Insurance	12,600	
Administration salaries	16,240	
Selling and distribution salaries	14,500	
Administration expenses	7,800	
Selling and distribution expenses	11,600	
Carriage for raw materials	4,800	
Discounts allowed/received	12,100	7,600
Inventories: Finished Goods	22,500	
Work in Progress	16,900	
Raw Material	7,600	
Trade receivables/payables	19,800	12,500
Ordinary capital of nominal value €0.50 per share		200,000
Share Premium		40,000
Retained Earnings		10,000
Bank		18,800
	721,240	721,240

Other information:

- a. Insurance payments were €2,800 in advance.
- b. Factory wages were for 50 weeks. Two weeks' wages were still due as at 31 March 2016.
- c. Depreciation is to be charged as follows:

Premises	2% on cost
Plant & Machinery	15% on cost
Motor Vehicles	40% on written down value
Office Equipment	20% on cost

- d. On 31 March 2016, loose tools were valued at €11,800.
- e. Inventories on 31 March 2016:

	€
Finished Goods	26,200
Work in Progress	14,800
Raw Material	12,600

- f. Depreciation on premises is to be charged to factory costs.
- g. 60% of insurance is to be charged to factory and the rest is to be shared equally between 'administration' and 'selling and distribution'.
- h. Electricity is to be allocated equally to 'factory', 'administration' and 'selling and distribution'.
- i. Motor vehicles were exclusively used for distribution purposes.
- j. The directors decided to transfer €10,000 to a General Reserve.

Required:

- A. Prepare the **Manufacturing Account** and the **Statement of Profit or Loss** of Osiris Manufacturing Co. Ltd. for the period ended 31 March 2016. *(12 marks)*
- B. Prepare the **Statement of Financial Position** of Osiris Manufacturing Co. Ltd. as at 31 March 2016. *(8 marks)*
- C. Mention one main difference between a public company and a private company and describe its implications. *(4 marks)*

Please turn the page.

Section B

Answer any TWO questions from this Section. Each question carries 18 marks.

2. Even Keel, a small enterprise, had the following non-current assets on its books at 1 January 2015:

	Original Cost	Purchase date
	€	
Motor Vehicle 1	15,000	June 2013
Motor Vehicle 2	33,000	May 2014
IT system 1	5,800	January 2013
IT system 2	7,000	February 2014
IT system 3	8,500	February 2014

Motor Vehicles are depreciated at 40% per annum using the reducing balance method. IT systems are depreciated at 25% per annum using the equal instalment method. A whole year's depreciation is calculated in the year of acquisition, while no depreciation is charged in the year of disposal.

Even Keel had also special tools for art and design work, which on 1 January 2015 were valued at €28,400. As these consisted of a large number of items, it was decided to revalue them professionally at the end of each year.

During the year ended 31 December 2015 the following events took place:

- In February, one of the vehicles, which had cost €15,000, failed the road worthiness test and was not considered adequate. It was part-exchanged for a motor lorry costing €26,000. The trade-in value of the old vehicle was €4,500.
- The company was informed that support on the IT system, which had originally cost €5,800, was to be stopped immediately as the product was being withdrawn from the market. A payment of €2,300 was received to cover all outstanding legal obligations of the software contract. Instead of purchasing a new IT system, Even Keel decided to update the other IT systems at a cost of €4,800. This update was to last for 3 years, the remaining life span of the existing IT systems, and written off accordingly with no residual value.
- Further special tools were purchased in April, costing €4,600. On 31 December 2015 the estimated value of special tools was €25,600.

Required:

- For the accounting period ended 31 December 2015, prepare the Non-Current Asset accounts, the Allowance for Depreciation accounts and Disposal accounts, including transfers to the Statement of Profit or Loss. *(14 marks)*
- Identify and explain the accounting concept that is being applied when providing for depreciation. *(4 marks)*

3. Pavia Boatbuilders is a sole trader in the maritime industry. He has never kept proper accounting records. Pavia is worried about possible pilferage by walk-in clients. He gives you all the invoices he has and some notes as explanations. From these you deduce the following:

a.

Bank Account			
	€		€
Balance 1 Jan 2015	5,340	Creditors	36,200
Debtors	53,420	Purchases	6,940
Cash	5,840	Electricity	2,680
Balance 31 December 2015	1,620	Drawings	8,700
		Fittings	6,900
		Rent	4,800
	66,220		66,220

- b. All cash received was from sales, except for €820 which Pavia received from the sale of his personal motor vehicle.
- c. Before banking all cash, Pavia paid €140 wages per week to his assistant and estimated sundry purchases of €30 per week. The shop is open for 50 weeks in a year.
- d. Discounts allowed amounted to €1,650 and those received were €1,125.
- e. A debtor failed to pay €120 due on sales. Pavia considers this as irrecoverable and wants to write off the balance.
- f. Returns in amounted to €1,270 and returns out to €975.
- g. Other balances included the following data:

	1 January 2015	31 December 2016
	€	€
Trade receivables	3,600	16,300
Trade payables	5,100	3,600
Inventories	12,300	8,600
Fittings (Book value)	22,400	23,300
Rent owing	360	540

Required:

- A. For the year ended 31 December 2016, prepare the Statement of Profit or Loss of Pavia Boatbuilders. (12 marks)
- B. Given that Pavia sets all his prices at a profit margin of 50%, and assuming that all data provided by Pavia is correct, calculate the cost of any goods that may have been stolen during the year. (3 marks)
- C. Explain why it is important to account for prepayments and accruals at year end. (3 marks)

4. The treasurer of the Seafarers' Own Club produced the following Receipts and Payments account for the year ended 31 December 2015:

	€	€
Receipts:		
Subscriptions	6,500	
Social activities	8,600	
Exhibition tickets	950	
Bar takings	16,350	
Sale of equipment	2,300	
Total Receipts		34,700
Payments:		
Bar purchases	7,830	
Wages to part-time cleaners	6,750	
Rent	5,500	
Exhibition expenses	1,230	
Entertainment for social activities	1,020	
Social Activities other expenses	680	
Prizes for social activities	760	
Catering for social activities	2,230	
Crew's transport	3,800	
Purchase of new equipment	4,900	
Total Payments		34,700

The following are the balances on the books of the club:

	1 January 2015	31 December 2015
	€	€
Equipment	38,500	?
Equipment Depreciation	12,600	?
Bank	6,215 (Dr)	?
Subscriptions in arrears	950	1,250
Subscriptions in advance	300	450
Rent in arrears	690	--
Rent in advance	--	360
Due for bar purchases	1,160	1,320
Bar inventories	850	1,035

- The equipment sold had originally cost €5,600 and since then had accumulated depreciation of €2,400.
- Equipment is considered to have a lifespan of 5 years at the end of which it would have a residual value of 10% of its cost.
- €220 of the prizes purchased for social activities remained undistributed and were to be used the following year. These were not included in the balances above.

- d. The annual subscription is €50 per member. Three members who were in arrears at the beginning of 2015 were deemed to have left the club and the subscriptions due were written off.
- e. 40% of cleaners' wages and 50% of rent were to be attributed to the bar expenses.
- f. All receipts and payments are passed through the bank.

Required:

- A. For the year ended 31 December 2015, prepare for Seafarers' Own Club:**
 - i. the Subscriptions and the Bar Trading accounts** (6 marks)
 - ii. the Income and Expenditure account** (5 marks)
 - iii. the Statement of Financial Position as at end of year** (4 marks)
- B. Distinguish between the Receipts and Payments and Income and Expenditure accounts.** (3 marks)

Please turn the page.

5. Hereunder is financial information relating to Masthead plc for the years 2014 and 2015

	2014		2015	
	€	€	€	€
Sales		160,000		195,000
Opening Inventory	18,000		35,000	
Purchases	137,000		144,000	
Closing Inventory	35,000		23,000	
Cost of sales		<u>120,000</u>		<u>156,000</u>
Gross Profit		<u>40,000</u>		<u>39,000</u>
<i>Other expenses (excluding interest on loan):</i>				
Selling & distribution		6,800		8,500
Administration		8,200		6,800

Other balances extracted from the Statement of Financial Position:

	2014	2015
	€	€
Capital	500,000	500,000
General Reserve	38,000	52,000
Retained Earnings	2,200	3,900
8% loan (repayable by 2022)	100,000	100,000
Trade Payables	21,000	32,000
Trade Receivables	25,000	34,000
Bank (Credit balance)	18,300	14,400

Other notes:

All sales were conducted on credit terms.

Except for the above, the enterprise had no other current assets or current liabilities. There was no loan interest outstanding at the end of 2014 and 2015.

Required:

A. Using the above information, calculate the following ratios for 2014 and 2015:

- i. Return on Capital Employed
- ii. Net profit margin
- iii. Gross profit margin
- iv. Gross profit mark-up
- v. Rate of inventory turnover
- vi. Collection period of receivables
- vii. Current ratio
- viii. Quick (acid test) ratio

(12 marks)

B. Analysing the results obtained in (A), explain to the directors of Masthead plc the company's progress or otherwise in the areas of profitability and liquidity. (6 marks)

Section C

Answer any TWO questions from this Section. Each question carries 20 marks.

6. Prow & Pop manufactures units made to specifications for sailing boats and cabin cruisers. One of its products is a vanity storage unit ideal for luxury cruisers. Order No. 541 has just been received for one of these units.

The production process requires that each unit passes through three different cost centres: cutting, assembling and spraying. The production overhead absorption rates of each cost centre are as follows:

Cost centre	Absorption basis	Rate (€) per hour
Cutting	Labour hours	3.00
Assembling	Labour hours	4.00
Spraying	Machine hours	5.00

Administration and selling overheads are absorbed at 150% of direct labour costs.

The production of Order No. 541 would require direct material costing €630 and the following resources:

Cost Centre	Machine hours	Labour hours	Labour rate (€) per hour
Cutting	4	15	6.50
Assembling	2	12	7.50
Spraying	8	6	10.00

Required:

- A. Calculate the total cost of Order No. 541, and the asking price for the unit if Prow & Pop's policy is to realize a profit margin of 20%. *(10 marks)*
- B. Describe how production overhead absorption rates are calculated, and explain their purpose. *(6 marks)*
- C. Distinguish between Service cost centres and Production cost centres. *(4 marks)*

7. The Slipway Engineering has the capacity to produce 50,000 units of its product. The budget for next year envisages that only 42,000 will be sold. The budgeted costs of production are as follows:

	€
Raw materials	336,000
Wages	168,000
Variable overheads	126,000
Fixed overheads:	
Depreciation	21,000
Rent	29,400
Insurance	12,600

Budgeted sales price is €20 per unit.

The directors of Slipway Engineering would prefer to operate at full capacity and ask their consultants for possible alternatives. These suggested the following:

- Plan 1: Given that local demand is limited, produce the extra 8,000 units for export. This would be possible if the selling price for these extra units is reduced to €18. Extra packaging for exported units would cost €0.40 per unit, and fixed costs would increase by €10,000 because of extra transport costs.
- Plan 2: All 50,000 units can be sold on the local market at €18.50 per unit. More advertising would be required at a cost of €5,000.

Required:

- A. According to the original budget, how many units must be sold for the company to break-even? *(4 marks)*
- B. What does the break-even point calculated in (A) mean? *(2 marks)*
- C. What is the meaning of ‘contribution’ and why is it relevant in the calculation of the break-even point? *(4 marks)*
- D. Calculate the margin of safety (in terms of sales revenue) in Slipway Engineering’s original budget. What does the margin of safety mean? *(3 marks)*
- E. Advise the board which of the three plans (the original budget; Plan 1; Plan 2) is the most financially profitable, supporting your answer with relevant figures. *(7 marks)*

8. Hometech Manufacturing produces two home appliances: washing machines and dishwashers. The production process consists of three production departments – A, B and C. These production departments are serviced by two other departments, namely inspection and maintenance.

The total annual overheads for each department are budgeted as follows:

	€
Department A	311,200
Department B	316,000
Department C	310,800
Inspection	36,000
Maintenance	28,000

The costs of the service departments are allocated to the production departments in these ratios:

	Department A	Department B	Department C
Inspection	25%	45%	30%
Maintenance	35%	35%	30%

The production budget for next year is as follows:

	Washing machines	Dishwashers
Units of Production	4,500	1,500
Machine hours per unit:		
Department A	3	2
Department B	5	4
Department C	6	4
Labour hours per unit:		
Department A	8	6
Department B	4	3
Department C	2	3

Required:

- A. Calculate the overhead absorption rate (correct to 2 decimal places) for each department using:
- i. Machine hour rate
 - ii. Labour hour rate (10 marks)
- B. Which absorption rate would you consider to be the most suitable for each of the three production departments? Explain why. (6 marks)
- C. Estimate the overhead absorbed in the production of one washing machine, using the absorption rates chosen in (B). (4 marks)