## ADVANCED MATRICULATION LEVEL 2021 FIRST SESSION

| SUBJECT: | Accounting |
| :--- | :--- |
| PAPER NUMBER: | I |
| DATE: | $2^{\text {nd }}$ June 2021 |
| TIME: | $4: 00$ p.m. to $7: 05$ p.m. |

This paper contains THREE sections. Follow the instructions below.

## Section A

Answer any FIVE questions from this section. Each question carries 4 marks.

## Section B

Answer question 8. This question is compulsory and carries 30 marks.

## Section C

Answer any TWO questions from this section. Each question carries 25 marks.

You must show the working leading up to your answers.
Candidates may only use non-programmable calculators in this examination.

## SECTION A

## Answer any FIVE questions in this section. This section carries a total of $\mathbf{2 0}$ marks.

1. Distinguish between the role of the accountant and the role of the auditor in relation to the annual financial reports prepared by an organisation.
2. List FOUR users of financial statements, and explain why each user group would be interested in these reports.
3. What is the difference between a revenue reserve and a capital reserve? Support your answer by referring to TWO reserves for each type.
4. Describe (i) the Accruals Concept; and (ii) the Realisation Concept.
5. Briefly describe the main sections of the Statement of Cash Flows, and explain the objective of such a statement.
6. The objective of a set of financial statements is to provide information to aid decision making. Relevance and faithful representation are the two fundamental qualitative characteristics that the information in the financial statements should have in order to achieve this objective. Describe these TWO characteristics and provide an example that illustrates the impact of these characteristics on the quality of the financial information.
7. Provide ONE example that illustrates how a business acts as a collector of value added tax on behalf of the Commissioner for Revenue.

Please turn the page.

## SECTION B

Answer Question 8 in this section. This question is compulsory and carries $\mathbf{3 0}$ marks.
8. Triton Marine Ltd had the following balances on its books as at 31 December 2020:

|  | c | c |
| :---: | :---: | :---: |
| Land \& Buildings | 340,000 |  |
| Motor vehicles | 60,000 |  |
| Equipment | 130,000 |  |
| Allowance for depreciation: |  |  |
| Land \& Buildings |  | 24,000 |
| Motor Vehicles |  | 32,000 |
| Equipment |  | 40,000 |
| 5\% Debentures |  | 100,000 |
| Debenture interest | 2,500 |  |
| Trade payables |  | 25,000 |
| Trade receivables | 89,350 |  |
| Bank |  | 13,100 |
| Cash | 8,150 |  |
| Inventories | 104,000 |  |
| Sales |  | 641,350 |
| Purchases | 238,100 |  |
| Returns in | 13,420 |  |
| Returns out |  | 10,400 |
| Motor Vehicles running costs | 18,300 |  |
| Carriage in | 8,760 |  |
| Carriage out | 12,530 |  |
| Electricity | 22,500 |  |
| Insurance | 16,400 |  |
| Administrative expenses | 105,000 |  |
| Salesmen's wages | 84,620 |  |
| Discounts allowed | 12,900 |  |
| Discounts received |  | 9,830 |
| Bad debts | 11,800 |  |
| Ordinary share capital (Nominal value €1 per share) |  | 300,000 |
| Share premium |  | 30,000 |
| General reserve |  | 40,000 |
| Retained earnings |  | 12,650 |
|  | 1,278,330 | 1,278,330 |

The following relevant information is also available:
a) Land accounts for $25 \%$ of the amount of Land and Buildings as shown in the Trial Balance.
b) Depreciation is provided for as follows:

| Buildings | $5 \%$ on cost |
| :--- | :--- |
| Motor vehicles and Equipment | $25 \%$ on written down value |

c) On 31 December 2020 the following amounts were due:

- $€ 2,150$ motor vehicles running costs,
- €4,200 electricity and
- $€ 3,150$ for audit fees.
d) The amount for Insurance as shown in the Trial Balance represents a premium for the 15 months starting from 1 March 2020.
e) Closing inventory was valued at $€ 96,320$.
f) Apart from their salary, sales staff are to share $1 \%$ of total net sales, calculated after charging commission. This commission has still to be provided for.
g) The directors have agreed to transfer $10 \%$ of the net profit to the general reserves.
h) After extracting the trial balance, it was noted that the following transactions were not recorded in the books:
i. an interim dividend of $€ 0.04$ per ordinary share, paid on 1 July 2020; and
ii. a bonus issue carried out on 1 December 2020. The bonus issue was of 1 share for every 5 held, and had to be effected from the share premium account and the general reserve, in that order.
i) The debentures were issued in 2018, and are redeemable in 2028. Debenture interest is payable every 6 months in arrears.


## Required:

A. Prepare the Statement of Profit or Loss of Triton Marine Ltd for the year ended 31 December 2020.
B. Prepare the Statement of Financial Position of the company as at 31 December 2020.
(Total: $\mathbf{3 0}$ marks)

## SECTION C

## Answer any TWO questions from this section. Each question carries $\mathbf{2 5}$ marks.

9. As at 31 March 2020, Olive Garage Ltd's non-current assets were as follows:

|  | C | C |
| :--- | :---: | :---: |
| Cost | Accumulated Depreciation |  |
| Land and Buildings | 480,000 | 154,000 |
| Equipment | 125,000 | 61,000 |
| Motor Vehicles | 95,000 | $?$ |

The company applied the following depreciation methods:

| Buildings | $5 \%$ on original cost |
| :--- | :--- |
| Equipment | $40 \%$ reducing balance |
| Motor vehicles | Straight line basis |

Company policy states that a full year's depreciation is calculated in the year of acquisition. No depreciation is provided in the year of disposal.
The original cost of the land, included in Land and Buildings, was $€ 180,000$.
This question continues on next page.

The following is an analysis of the Motor Vehicles held as at 31 March 2020:

| Description | Date of Purchase | Original Cost <br> $\boldsymbol{€}$ | Residual value <br> $\boldsymbol{€}$ |
| :--- | :--- | :---: | :---: |
| Saloon car | November 2016 | 17,000 | 3,000 |
| Lorry One | July 2018 | 12,000 | 1,500 |
| Lorry Two | August 2019 | 22,000 | 3,300 |
| Lorry Three | December 2019 | 44,000 | 6,600 |
|  |  | 95,000 | 14,400 |

Motor vehicles held on 31 March 2020 had a useful life of 3 years. New motor vehicles acquired during the year ended 31 March 2021 had an estimated useful life of 5 years.
During the year ended 31 March 2021, the following transactions took place:
a) Equipment bought in May 2017 for $€ 18,000$, was considered inadequate and sold for $€ 3,800$. The equipment was replaced with new equipment costing $€ 26,000$.
b) The company director's saloon car was traded in for a new one costing $€ 24,000$, which residual value was estimated to be $€ 6,000$. The trade in value of the old saloon car was $€ 3,000$.
c) Lorry One was traded in for a new lorry costing $€ 34,000$. The old lorry realised $€ 2,800$ as trade-in allowance. It was estimated that the new lorry would fetch $€ 7,800$ as scrap value after 5 years in use. The company paid $20 \%$ of the cost of the new lorry in cash.
d) A warehouse was built with costs of material amounting to $€ 65,000$, utilising some of the company's workforce for 20 weeks with total weekly wages of $€ 2,560$.

## Required:

A. Prepare the Land and Buildings, Equipment and Motor Vehicles accounts and the corresponding Allowance for Depreciation accounts, for the year ended 31 March 2021, including closing balances and transfers to the Statement of Profit and Loss.
B. Prepare the Disposal accounts, showing any profit or loss on disposals for the year.
C. Explain why are buildings depreciated while land is not.
(Total: $\mathbf{2 5}$ marks)
10. Joseph Borg owns Metalfirst Distributors, importing ironmongery goods for local distribution. In August 2020, a fire destroyed Borg's offices which contained most records of transactions. By 31 December 2020, the end of Metalfirst's reporting period, Borg managed to collate the following details:

Assets and liabilities at 31 December 2019:

|  | C |
| :--- | ---: |
| Premises | 360,000 |
| Depreciation Allowance on Premises | 85,000 |
| Fittings | 97,000 |
| Depreciation Allowance on Fittings | 35,000 |
| Motor vehicles | 85,000 |
| Depreciation Allowance on Motor vehicles | 32,000 |
| Trade receivables | 41,000 |
| Trade payables | 56,000 |
| Administration expenses due | 800 |
| Insurance prepaid | 500 |
| Inventories | 42,000 |
| Bank balance (debit) | 18,000 |
| Cash | 12,500 |

Borg could not ascertain the total sales for the year 2020 since he conducted his sales both on cash and credit basis. Borg's bank records show that he had deposited a total of $€ 276,960$ from his sales receipts. The amount for sales receipts banked includes a bad debt recovered of $€ 760$. Another deposit of $€ 8,300$ relates to a personal investment that had matured and the proceeds were deposited in the business bank account.

All purchases are on credit, and bank records show that he had paid $€ 250,160$ to suppliers. He had also taken goods costing $€ 3,100$ for personal use.

The following were cash payments from sales receipts before these were banked:

|  | C |
| :--- | ---: |
| New fittings | 8,600 |
| Motor van | 34,000 |
| Electricity | 4,200 |
| Insurance | 2,300 |
| Transport costs | 2,800 |
| Drawings | 16,400 |
| Wages for employee | 12,000 |
| Administration expenses | 9,600 |

Discounts allowed during the year were $€ 6,400$, while those received from his suppliers totalled €8,734.

On 31 December 2020, $€ 47,666$ were owed to suppliers. One supplier had also an account in the Sales Ledger and the balance of $€ 3,800$ had been settled by a contra entry. Borg was certain that returns to suppliers amounted to $€ 6,420$.

Trade receivables at 31 December 2020 stood at $€ 54,500$, excluding a balance of $€ 5,200$ considered as not collectible.

Closing inventories were valued at $€ 27,640$.

On 31 December 2020, €800 for insurance were prepaid, while administration expenses of $€ 1,100$ were due but not yet paid.

Depreciation is to be provided as follows:

| Premises | $2 \%$ on cost |
| :--- | :--- |
| Motor vehicles and Fittings | $20 \%$ on written down value |

Borg makes a uniform profit margin on sales of $25 \%$.

## Required:

A. Prepare the Purchases and Sales Ledger Control Accounts for the year ended 31 December 2020.
B. Prepare the Statement of Profit or Loss for the period ended 31 December 2020.
C. Prepare the Statement of Financial Position as at that date in as much detail as possible. (8)
D. Explain the accounting concept underlying the accounting treatment of the proceeds received from the maturity of the personal investment.
(Total: 25 marks)
Please turn the page.
11. Due to the ongoing COVID-19 pandemic, the directors of Evermore Ltd are assessing the financial impact on their 2021 strategy. The following are extracts from the Statements of Financial Position and the Statements of Profit and Loss of Evermore Ltd. Inventory on 1 July 2019 was valued at $€ 20,000$.

## Statement of Profit and Loss

30 June 2020

## c

Turnover
Cost of Sales
Gross Profit
Administrative Expenses
Finance Costs

Profit Before tax
Income tax Expense
Profit for the Year
c

1,750,000 $(1,029,412)$
720,588 253,750
0 0

| $(253,750)$ |
| ---: |
| 466,838 |
| $(163,393)$ |
| $\mathbf{3 0 3 , 4 4 5}$ |

30 June 2020
Statement of Financial Position
ASSETS

Non-Current Assets
Property Plant and Equipment
Current Assets
Inventory
Trade Receivables
Cash and Cash Equivalents
Total Assets

## EQUITY AND LIABILITIES

Equity and Reserves
Ordinary Share Capital
Revaluation Reserve
Retained Earnings

## $\epsilon$

## c

671,045

| 18,000 |  |
| ---: | ---: |
| 84,000 |  |
| 3,000 |  |
|  | 105,000 |
|  | $\mathbf{7 7 6 , 0 4 5}$ |


| 600,000 |
| ---: |
| 28,207 |
| $(76,555)$ |
| 551,652 |

30 June 2021
c
3,500,000
$(2,187,500)$
$1,312,500$
202,615
15,000
$\bar{\square}$
$(217,615)$
1,094,885

| $(383,210)$ |
| ---: |
| $\mathbf{7 1 1 , 6 7 5}$ |

30 June 2021
c

1,765,027

| 31,500 |  |
| ---: | ---: |
| 90,300 |  |
| 6,000 |  |
|  | 127,800 |

Non-Current Liabilitie
Loan
Trade Payables
Interest Payable
Tax Payable
0
300,000

Total Equity and Liabilities
224,393
229,500
1,892,827

## Required:

A. Prepare a report to the directors of Evermore Ltd, comparing and contrasting the financial performance and financial position of the company for the two years (ending $30^{\text {th }}$ June 2020 and 2021), given the new strategy, using the relevant accounting ratio analysis, with particular emphasis on the following sections:
i. Profitability (3 ratios);
ii. Efficiency (2 ratios);
iii. Liquidity Position (2 ratios);
iv. Capital Structure (Gearing)/ Investment Considerations (2 ratios).
B. Evermore Limited is a limited liability company and is considering going public. Explain TWO differences between a private and a public company and list TWO new possible sources of finance available to the company if it goes public.
(Total: 25 marks)
12. Gold Rush Manufacturing Limited is a well-established manufacturer of custom made accessories. The following trial balance was extracted from the accounting system on 31 May 2021, the financial year end of the company:

|  | C | c |
| :---: | :---: | :---: |
| Inventory: Raw materials | 35,000 |  |
| Finished goods | 125,000 |  |
| Work-in-progress | 63,000 |  |
| Provision for unrealised profit |  | 25,000 |
| Purchases of raw materials | 463,000 |  |
| Factory wages | 300,950 |  |
| Sales |  | 2,048,900 |
| Carriage Inwards | 54,000 |  |
| Carriage Outwards | 11,000 |  |
| Water \& Electricity | 12,960 |  |
| Machinery repairs and maintenance | 2,400 |  |
| Returns | 8,075 | 4,750 |
| Rent | 17,800 |  |
| Administration Expenses | 2,700 |  |
| Plant and Machinery Insurance | 1,236 |  |
| Plant \& Machinery cost/ depreciation | 1,290,000 | 145,000 |
| Office fittings cost/ depreciation | 128,000 | 51,000 |
| Motor vehicles cost/ depreciation | 50,000 | 40,000 |
| Trade receivables/Trade payables | 21,000 | 80,000 |
| Share capital ( $€ 1$ nominal value per share) |  | 250,000 |
| Retained profits |  | 36,771 |
| Bank | 95,300 |  |
|  | 2,681,421 | 2,681,421 |

This question continues on next page.

You have also been provided with the following information:
a) As at 31 May 2021, inventory was valued as follows:

## c

Raw Materials: 31,000
Finished Goods: 69,500
Work-in-Progress: 40,450
b) The inventory valuation of finished goods in (a) does not include $€ 12,000$ of finished goods (at factory transfer price) which were damaged during handling. Unfortunately, these goods were not insured and their net realisable value is estimated at $€ 2,000$.
c) Finished Goods are transferred to the trading account at a factory profit of $25 \%$ on a costplus basis.
d) Water and Electricity is apportioned between factory and office using a $90 \%: 10 \%$ split. Factory wages are split 75\%:25\% between the manufacturing process itself and other factory staff costs not directly related to the manufacturing process. The rental cost pertains to the rental of office premises.
e) As at 31 May 2021, Factory Wages of $€ 18,000$ were unpaid, while $€ 1,500$ of rent was prepaid.
f) The following is an extract from the company's accounting policy regarding Non Current Assets:

Plant \& Machinery: 5\%, Straight line basis
Office fittings: $8 \%$, Straight line basis
Motor Vehicles: $10 \%$ Reducing Balance Method
A full year's depreciation is provided for in the year of acquisition. No depreciation is charged in the year of disposal.
g) It is estimated that $45 \%$ of Motor vehicles usage is utilised for transporting raw materials, whilst the remainder relates to the transport of finished goods. Office fittings are used entirely for administrative purposes.

## Required:

A. Prepare the Manufacturing account of Gold Rush Manufacturing Limited for the year ended 31 May 2021, clearly detailing: the Prime Cost and the final transfer to the trading account at transfer prices.
B. Prepare the Unrealised Profit Account for the year ended 31 May 2021.
C. Prepare the Statement of Profit and Loss for the year ended 31 May 2021.
D. Briefly explain the accounting treatment adopted for the damaged inventory described in point (b) of the question, highlighting the accounting concept being applied.

## ADVANCED MATRICULATION LEVEL 2021 FIRST SESSION

| SUBJECT: | Accounting |
| :--- | :--- |
| PAPER NUMBER: | II |
| DATE: | $3^{\text {rd }}$ June 2021 |
| TIME: | $4: 00$ p.m. to $7: 05$ p.m. |

This paper contains THREE Sections. Follow the instructions below.

## Section A

Answer any FIVE questions in this Section. Each question carries 4 marks.

## Section B

Answer question 8. This question is compulsory and carries 30 marks.

## Section C

Answer any TWO questions from this Section. Each question carries 25 marks.
You must show the working leading up to your answers.
Candidates may only use non-programmable calculators in this examination.

## SECTION A

Answer any FIVE questions in this section. This section carries a total of $\mathbf{2 0}$ marks.

1. Describe FOUR differences between financial accounting and management accounting.
2. With reference to Inventory valuation:
a) Identify TWO cost elements that could be included as part of the cost of inventory, and TWO cost elements that should not be included.
b) Define net realisable value of inventory, and explain the accounting treatment when the net realisable value of inventory differs from its original cost.
3. Explain why inventory control is important and briefly describe TWO tools that can be used in such control.
4. a) Briefly describe the circumstances that determine whether a firm should adopt job costing and when it is appropriate to use process costing.
b) Provide TWO examples of industries that would use job costing and TWO others that would use process costing.
5. Distinguish between normal losses and abnormal losses in process costing. Explain the accounting treatment for each type of loss.
6. A factory is operating at $90 \%$ capacity (both machine and labour resources). The management has received a request for an order that would require $15 \%$ of the factory's capacity. The order is from a new client, and it concerns the production of a batch of units that would require some changes to be carried out to the normal process run.
Describe TWO factors that should be taken into consideration by the management in order to decide whether to accept this special one-off order.
7. Explain the difference between wages based on hourly rates and wages based on piece rates, highlighting the circumstances when each type of remuneration method would be more suitable.

## SECTION B

## Answer Question 8 in this Section. This question is compulsory and carries $\mathbf{3 0}$ marks.

8. Noah Cassar has always been fond of Maltese craftsmanship. Noah's friend encouraged him to attend a course which covered all the necessary steps to craft the Maltese clock. Noah has mastered the skill and is now contemplating to start producing and selling these traditional Maltese clocks as from August 2021. Before embarking on this venture, Noah requested your assistance to provide him with projected cash requirements based on the following information:
a) Noah plans to deposit $€ 2,000$ in a business bank account to kick-start the project on 1 August. Any expenses incurred before this date are to be paid from his personal bank account.
b) Noah will first focus on crafting dark-green coloured clocks with a hand-painting of a Maltese landscape in the middle of the dial. Based on research he has carried out, he expects the monthly sales in number of clocks to be as follows:

|  | August 2021 | September 2021 | October 2021 | November 2021 |
| :---: | :---: | :---: | :---: | :---: |
| No. of clocks | 5 | 8 | 14 | 22 |

c) Noah will be promoting and selling clocks to both retail outlets and individual customers. $60 \%$ of the sales will be to retail outlets. $30 \%$ of the revenue from the retail outlets is expected to be received during the month the clocks are sold, $20 \%$ will be received in the month following the sale, whilst the remaining monies will be received within 2 months' time from month of sale. Individual customers are likely to pay in cash and will benefit from a 5\% cash discount.
d) Noah estimates that he will require the following materials in order to produce one clock:

| Wood | Half a metre at $€ 50$ per metre |
| :--- | :--- |
| Glass | One piece costing $€ 4$ |
| Paint | $€ 6$ on average |
| 5 pieces of 23.5 carat gold leaf | $€ 30$ per piece |
| Clock mechanism | $€ 5$ per unit |

Noah sets the selling price at a gross profit mark-up of 20\%, assuming that the abovementioned costs are the only costs of production.
e) At the beginning of August, Noah shall have sufficient materials to be able work on the August orders as well as $40 \%$ of the order of the following month. At the end of each month, he plans to have sufficient materials to cover $40 \%$ of the following month`s orders. Noah assesses that he will pay $30 \%$ of the purchases on delivery, $30 \%$ during the month following the purchase whilst the remainder in 2 months' time.
f) Noah does not plan to hold any inventory of finished goods.
g) Noah will rent a workshop as from 1 August 2021 for $€ 75$ per month payable at the beginning of each month. In addition, Noah expects to incur an additional $€ 40$ per month in utilities payable one month in arrears starting from August 2021.
h) Noah plans to put up adverts on Facebook four times a month for the next 12-months as from 1 September 2021. Each adverts costs $€ 20$ and must be paid one month in advance.
i) In May 2021, Noah had approached a third party to create the advert for a total cost of $€ 150$. He was required to pay a deposit of $20 \%$ on confirmation in May 2021, whilst the remainder was to be settled in two equal monthly instalments once the advert is completed in July 2021. Noah will be requesting a local magazine publisher to include the ad in the monthly magazine for a 6-month period starting November 2021 for a cost of $€ 15$ per issue payable 2 months' in advance.
j) In July 2021, Noah plans to purchase a set of professional tools for $€ 500$. The supplier is asking for $€ 300$ immediately on acquisition, with the balance being payable in two equal monthly instalments. Noah has assured you that he will take good care of his tools and will not lose any of them, especially during his first year of operation.

## Required:

A. Prepare a monthly cash budget for the THREE months ending 31 October 2021.
B. Draft a projected Statement of Profit and Loss for the same three-month period and a budgeted Statement of Financial Position as at 31 October 2021.

## (Total: $\mathbf{3 0}$ marks)

## SECTION C

## Answer any TWO questions from this Section. Each question carries $\mathbf{2 5}$ marks.

9. XIPROBLEMA Limited is an export-oriented manufacturing company producing three products, namely, AYE, BYE and CYE.

The production costs per unit are as follows:

| Products | AYE | BYE | CYE |
| :--- | :---: | :---: | :---: |
|  | C | C | C |
| Direct Materials | 80 | 48 | 64 |
| Direct Wages - Skilled Labour | 24 | 36 | 60 |
| Direct Wages - Unskilled Labour | 42 | 30 | 24 |

The expected selling prices and demand for the company's products for the six months ending 31 December 2021 are as follows:

$$
\begin{array}{ll}
\text { Product AYE } & 12,000 \text { units at } € 439 \text { per unit } \\
\text { Product BYE } & 10,800 \text { units at } € 375 \text { per unit } \\
\text { Product CYE } & 11,000 \text { units at } € 414 \text { per unit }
\end{array}
$$

The raw material cost is $€ 8$ per kilogram. The direct skilled labour rate per hour is $€ 12$ and the direct unskilled labour rate per hour is $€ 6$. The variable overhead is based on the direct labour cost and is absorbed at the rate of $50 \%$. The fixed production overheads for the sixmonth period are budgeted at $€ 4,600,000$.

Due to COVID-19 restrictions, the supply of the total material used in the manufacture of the company's products will be limited to $172,000 \mathrm{~kg}$.

## Required:

A. As the company's management accountant, prepare a statement advising management the most profitable production plan for the six months ending 31 December 2021.
B. Prepare a profit statement showing the contribution and profit made by the company based on your recommendation in (A) above.
C. Briefly comment on management considerations in order to decide whether to manufacture a product or buy it ready made from a third party.
(Total: 25 marks) Please turn the page.
10. A local firm provides architect services, including the services of site managers and project managers. The cost of the employees in these three categories of services are considered as a direct cost. Support staff are also employed and their salaries are considered as an indirect cost. The company is undergoing a restructuring exercise and, as part of this exercise, it is reviewing its labour hourly costs and recovery rates. The company has the following employees on its payroll:

|  | Project managers | Number of <br> employees | Basic Annual <br> Salary |
| :--- | :---: | :---: | :---: |
| Cirect Labour | Site managers | 10 | 50,000 |
| Direct Labour | Architects | 20 | 35,000 |
| Direct Labour |  | 40 | 45,000 |
| Support staff |  | 10 | 18,200 |

The following information is available:
a) A statutory bonus of $€ 512$ per annum is paid to each employee besides the gross annual salary.
b) National insurance at the rate of $10 \%$ of the basic salary (excluding bonuses) is payable by the company.
c) All employees work a forty-hour week of 5 days. Each employee is entitled to 27 days vacation leave per annum. Based on past trends, each employee takes on average 13 days per annum as sick leave.
d) Indirect labour should be allocated to the direct cost centres in the following proportion:

Project managers
$10 \%$
Site managers
30\%
Architects
60\%
e) The company's annual overheads are estimated at $€ 232,000$ per annum and are to be allocated as follows:
Project managers
15\%

## Site managers

30\%

## Architects

55\%
f) The company's policy is to register a profit loading of $50 \%$ on cost.

## Required:

A. Calculate the labour hourly rate cost incurred by the company for the different grades of its direct employees.
B. Calculate the labour hourly rate to be charged to the company's customers for each of its THREE services.
C. A client has contacted the company to quote for a job which will require 1 project manager, 2 site managers and 4 architects for 4 weeks. Based on your workings above, what is the labour cost to undertake this job and what is the amount to be quoted for the hours of service required.
D. Define labour turnover. Briefly explain how and why a high rate of labour turnover affects costs.
11. Mangiare Limited is a food manufacturing company catering mainly for hospitals and care homes. The company has two production departments, namely, the Cooking Department and Packaging Department. These are supported by three service departments, namely: Stores, Canteen and Maintenance. The budgeted overheads for the year 2020 were as follows:

Indirect wages
Electricity
Rent
Insurance of machinery
Insurance of premises
Depreciation of machinery
€266,000
€28,000
$€ 35$ per square metre
€7,560
€4,125
$10 \%$ on machinery cost

The following additional information was available:
Cooking Packaging Stores Canteen Maintenance
Number of indirect

| employees | 6 | 3 | 1 | 2 | 2 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Indirect Material cost $-€$ | 13,694 | 10,568 | -- | 1,255 | 6,288 |
| Machine Cost $-€$ | 40,000 | 86,000 |  |  |  |
| Direct Labour Hours | 32,400 | 5,800 |  |  |  |
| Machine Hours | 16,200 | 40,960 |  |  | 100 |
| Floor Area - Square | 600 | 400 | 300 | 100 | 500 |
| metres |  |  |  |  | 500 |

The costs of the service departments were allocated to the other departments as follows:

|  | Cooking | Packaging | Stores | Maintenance |
| :--- | :---: | :---: | :---: | :---: |
| Canteen | $60 \%$ | $20 \%$ | $10 \%$ | $10 \%$ |
| Stores | $60 \%$ | $30 \%$ |  | $10 \%$ |
| Maintenance | $70 \%$ | $30 \%$ |  |  |

The company uses job costing. The following information related to Job 117:

|  | Cooking Department | Packaging Department |
| :--- | :--- | :--- |
| Direct material | $€ 12,297$ | $€ 2,960$ |
| Direct labour | 500 hours at $€ 9.00$ per hour | 220 hours at $€ 7.50$ per hour |
| Machine Hours | 118 hours | 256 hours |

## Required:

A. Calculate an appropriate overhead recovery rate for each production department by apportioning the costs of the service departments to the production departments and using suitable bases for apportioning indirect costs.
B. Calculate the cost of Job 117 and the selling price quoted. The company's jobs are invoiced at cost plus $20 \%$ mark-up.
C. Explain the methods used above for the recovery of overheads, giving reasons for choosing these methods.
12. EG Limited manufactures and sells one type of unit. The selling price for 2021 has been established at $€ 3.50$ per unit. The company has recorded the following total costs during the first 4 months of 2021:

| Month | Output volume <br> (units) | Total cost |
| :--- | :---: | :---: |
| January | 65,000 | $\mathbf{C}$ |
| February | 80,000 | 212,500 |
| March | 90,000 | 250,000 |
| April | 60,000 | 275,000 |
|  |  | 200,000 |

## Required:

A. Estimate the total cost that should be expected in the months of May and June, if output is 75,000 and 85,000 units, respectively.
B. Calculate:
i. The contribution per unit;
ii. The break even point expressed in monthly sales units;
iii. The margin of safety for the months of May and June;
iv. The total expected profit for the 6 -month period.
C. Draw a break even chart for the 6 -month period in total, and mark the break even point, the margin of safety and the expected profit on the chart.
D. Describe TWO fundamental assumptions underlying the Cost-Volume-Profit analysis you have used to answer this question.

