# INTERNATIONAL A-level ACCOUNTING 

Paper 4 Accounting for analysis and decision making

## Specimen paper

## 07:00 GMT Time allowed: 2 hours 15 minutes

## Materials

For this paper you may use:

- a calculator


## Instructions

- Use black ink or black-ball-point pen.
- Fill in the boxes at the top of this page.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).


## Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 90 .


## Section A

Answer all questions in this section.

Only one answer per question is allowed.
For each question completely fill in the circle alongside the appropriate answer.
CORRECT METHOD $\quad$ WRONG METHODS $\infty \odot \infty$
If you want to change your answer you must cross out your original answer as shown.
If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.


| $\mathbf{0}$ | $\mathbf{1}$ Which formula is used to calculate the overhead absorption rate? |
| :--- | :--- |

A $\frac{\text { Actual overheads }}{\text { Actual activity }}$


B $\frac{\text { Actual overheads }}{\text { Budgeted activity }}$


C $\frac{\text { Budgeted overheads }}{\text { Actual activity }}$


D $\frac{\text { Budgeted overheads }}{\text { Budgeted activity }}$


| 0 | 2 |
| :--- | :--- | Which of the following variances may require the calculation of flexed information?

A Labour efficiency and material price $\square$
B Labour efficiency and material usage
C Labour rate and material price
D Labour rate and material usage $\square$

| 0 | 3 |
| :--- | :--- | A business is considering investing in new machinery.

The machinery will cost $£ 850000$. The cash flows are shown below and are assumed to accrue evenly during the year.

| Year | Cash inflow <br> $£$ | Cash outflow <br> $£$ |  |
| ---: | :---: | :---: | :---: |
| 1 | 450000 | 200000 |  |
| 2 | 650000 | 200000 |  |
| 3 | 650000 | 200000 |  |

What is the payback period for the machine?

A 1 year 89 days
B 1 year 324 days
C 2 years 33 days
D 2 years 122 days

| 0 | 4 |
| :--- | :--- | Standard cost is best defined as which of the following?

A The actual unit cost of a product produced in a period of time

B The actual average unit cost of a product produced in a period of time $\square$
C The planned unit cost of a product produced in a period of time
D The planned average cost of a product produced in a period of time

| 0 | 5 |
| :--- | :--- | A manufacturer requires 9000 labour hours and 3000 kg of material to produce 450 units of product $L$ and 300 units of product $M$. It expects to have 7500 labour hours and 3500 kg of material available.

Which product should it produce first?

A The product with the highest contribution per kg
B The product with the highest contribution per labour hour
C The product with the highest contribution per unit
D The product with the highest profit per unit

| 0 | 6 | Which of the following is not a fundamental principle of ethical behaviour? |
| :--- | :--- | :--- |

A Confidentiality


B Integrity
C Objectivity
D Subjectivity $\square$

| 0 | 7 | A company is planning to expand and will require additional finance. |
| :--- | :--- | :--- | Which method of funding will decrease the capital gearing ratio?

A Debenture $\square$

B Long-term bank loan
C Mortgage
D Ordinary shares $\square$

| 0 | 8 Which of the following is the correct formula (all expressed in units) to calculate |
| :--- | :--- | budgeted units of production?

A Sales - closing inventory - opening inventory $\square$

B Sales - closing inventory + opening inventory $\square$

C Sales + closing inventory - opening inventory
D Sales + closing inventory + opening inventory $\square$

0 Which of the following does not apply to management accounting information?

A Emphasis on decision making
B Focuses on the needs of internal stakeholders
C Produced within a regulatory framework
D Reports can be produced as and when needed $\square$○
$1 \mathbf{0}$ A manufacturer employs one factory supervisor for every five factory workers. Which best describes the cost of the factory supervisors' salaries?

A Direct and stepped fixed $\square$
B Direct and variable

C Indirect and stepped fixed
D Indirect and variable $\square$

| 1 | 1 |
| :--- | :--- | A manufacturer has provided the following information:


|  | Per unit <br> $\mathbf{£}$ |
| :--- | ---: |
| Selling price | 11.25 |
| Direct materials | 6.90 |
| Direct labour | 2.10 |

Fixed overheads for the year are expected to be $£ 147000$.
Calculate the number of units that would have to be produced and sold to achieve a target profit of $£ 21750$.
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| 1 | 2 | Thab Ltd is considering investing in a new machine. |
| :--- | :--- | :--- |

The following information is available about the machine:

| Cost | $£ 194675$ |
| :--- | ---: |
| Estimated residual value | $£ 34675$ |
| Estimated life | 4 years |

Profit for the year at the end of year 1 is expected to be $£ 35000$ and is estimated to then increase by $10 \%$ per annum year on year.

The machine will be depreciated using the straight-line method.
The discount factors for a $12 \%$ cost of capital are:

| Year | Discount factor |
| ---: | ---: |
| 1 | 0.893 |
| 2 | 0.797 |
| 3 | 0.712 |
| 4 | 0.636 |

Calculate the net present value for the machine. Show all values rounded to the nearest whole pound.
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## Section B

> Answer all questions in this section.

| 1 | $\mathbf{3}$ Ekib Ltd has provided the following budgeted information: |
| :--- | :--- |


| Budget production | 32000 units |
| :--- | ---: |
| Budgeted direct labour cost | $£ 1872000$ |
| Budgeted direct material cost | $£ 1972000$ |
| Labour hours per unit | 4.5 |
| Material quantity per unit | 8.5 kilograms |

Actual production was 30000 units.
Actual labour per unit is 3.5 hours at a rate of $£ 14$ per hour.

Actual material per unit is 6.75 kilograms at a cost of $£ 9.45$ per kilogram.

| 1 | 3 | 1 |
| :--- | :--- | :--- |
| Calculate the following variances: |  |  |

Material price variance $\qquad$
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Materials usage variance $\qquad$
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Labour rate variance
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Labour efficiency variance
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| $\mathbf{1}$ | $\mathbf{3}$ | $\mathbf{2}$ Prepare a reconciliation of budgeted cost to actual cost. |
| :--- | :--- | :--- |


|  | £ |
| :--- | :---: |
| Budgeted cost |  |
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| Actual cost |  |

Workings $\qquad$
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Ekin plc uses batch production to manufacture two products, X and Y .
The business uses activity-based costing when calculating the overhead costs to be assigned to each product type.

The following information is available about both products per week.

|  | $\mathbf{X}$ | $\mathbf{Y}$ |
| :--- | ---: | ---: |
| Production in units | 4500 | 3600 |
| Number of units per batch | $£ 33750$ | $£ 22750$ |
| Material costs | $£ 42500$ | $£ 55250$ |
| Labour costs | 10500 | 2500 |
| Machine hours | 5000 | 6500 |
| Labour hours |  |  |

- Each batch requires machinery to be reset. The fixed production costs for machinery preparation totalled $£ 44160$.
- Quality control procedures for both products are conducted every 300 units. The fixed costs for quality control procedures totalled $£ 68310$.
- All units produced each week are sold.

The selling prices for each product are based on an $80 \%$ mark-up on variable cost.

| 1 | 4 | 1 |
| :--- | :--- | :--- |
| 1 |  |  | type of product, X and Y .

[14 marks]
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| 1 | 4.2 | Ekin plc implemented activity-based costing two years ago. Before this |
| :--- | :--- | :--- | implementation both products always made a profit. The management accountant is concerned about whether the cost drivers being used now are appropriate. The management accountant is recommending that the directors of Ekin plc consider changing back to using a traditional absorption costing method.

Advise the directors of Ekin plc whether they should change back to absorption costing.
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| 1 | 5 | Webster, a sole trader, has provided the following budgeted information. |
| :--- | :--- | :--- |


|  | Sales | Purchases |
| :--- | ---: | ---: |
| $£$ | 48000 | 24000 |
| November | 55000 | 30000 |
| December | 60000 | 36000 |
| January |  |  |

- $25 \%$ of sales will be on a cash basis with a $3 \%$ cash discount, $60 \%$ on a one-month credit basis and $15 \%$ on a two-month credit basis.
- Half of purchases will be on a cash basis with the other half being on a one-month credit basis.
- Wages will be $£ 6000$ in December and are paid in the month incurred. From January, they will increase by $2.5 \%$.
- A loan of $£ 45000$ is being repaid in equal monthly instalments over five years. The amount still owing at 1 January will be $£ 18000$. Interest is charged at a rate of $5 \%$ per annum and is calculated and paid monthly on the basis of the outstanding balance at the start of each month.
- Non-current assets have a carrying value of $£ 48000$ and an estimated scrap value of $£ 12000$. They are being depreciated at $20 \%$ per annum using the reducing balance method.
- Expenses (including depreciation) are $£ 15000$ per month and are paid in the month incurred.
- Cash drawings are taken each month based on $8 \%$ of monthly sales.
- The bank balance at 1 January is expected to be $£ 1250$.

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## Workings

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| 1 | 5 | 2 |
| :--- | :--- | :--- | The cash balance for Webster has been declining in recent months. Webster is considering whether to delay paying his suppliers to improve cash flow.

Assess whether this would be the most appropriate way to improve the cash flow of Webster's business.
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## Section C

RH Wheels Ltd is a manufacturer. The production process is currently labour intensive.

The directors of RH Wheels Ltd are considering introducing machinery to automate the production process to reduce labour costs.

The machinery will cost $£ 9000000$ and will be operational for 10 years after which time it is expected to be sold for $£ 2000000$.

It is expected that 140 members of the existing production staff will immediately be made redundant at a cost of $£ 876000$.

The payback period for the machinery has been calculated at 3 years and 1 month after which time a net cash flow of $£ 2830000$ per year will be achieved.

Assess whether the directors should purchase the machinery.
Consider both financial and non-financial factors.
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## END OF QUESTIONS

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