ICMAP Pathway exam

Thursday 11 June 2026

Paper TPE

Time allowed

4 hours including reading, planning and reflective time.

This question paper is an integrated case study with two questions containing a total of 100 marks and ALL questions must be completed.

All questions contain professional skills marks which are included in the marks shown.

Do NOT open this question paper until instructed by the supervisor.

You must NOT write in your answer booklet until instructed by the supervisor.

This question paper must not be removed from the examination hall.

ACCA Think Ahead

The Association of Chartered Certified Accountants

1 Company background

Today is 3 June 20X6.

AirPure Systems (APS) manufactures solar-powered indoor air-cleaning units for offices, schools and healthcare facilities. APS is based in Soland and reports in S$. APS sells mainly in Soland but also supplies some customers in neighbouring countries through distributors (independent companies which buy APS products and sell them on).

Each APS air-cleaning unit is a combination of a solar charging panel, a battery unit, sensors and filtration modules. Over the past three years APS has developed four different models. Two are standard models (designed for offices/schools) and two are premium healthcare models for the hospital and wider medical sector, which expects stricter quality control, faster response when faults occur and reliable delivery dates.

Demand surge and operating strain

The Soland government introduced new indoor-air-quality regulations at the start of 20X6, which increased demand for indoor-air-quality equipment. APS sales have benefited from this, but the demand increase has exposed weaknesses in production reliability and planning.

APS operates from one manufacturing site in the Soland city of Northport. In the last six months APS has experienced frequent changes to the production schedule, late delivery of materials from suppliers and increasing rework (units that must be repaired). Customer complaints about missed delivery dates have increased, and some key customers have threatened to switch suppliers unless reliability improves. The chief operations officer (COO) is interested in APS's operational capability (how well it can produce and deliver consistently) and readiness for expansion, and how it can improve delivery reliability and internal control (see Exhibit 1).

Management information and month-end routines

APS's costing and reporting system was designed for a simpler product range. It still uses one overhead absorption rate based on direct labour hours. However, APS's production is now more automated and indirect costs are a much larger proportion of total cost.

Managers struggle to reconcile operational reports, including for example units produced, units recorded as shipped and inventory levels, with month-end financial results. The finance department often posts manual month-end journals to "correct" inventory and cost of sales using spreadsheets, but these are not well understood by the operational managers.

Reported shipment volumes appear to be rising, but customer outcomes and internal control indicators are worsening. For example, on-time delivery and the accuracy of inventory records have deteriorated, overdue orders have increased and overtime costs have risen sharply. In addition, it has been noted that a large proportion of shipments are recorded in the final days of each month (see Exhibit 2). The board wants to understand what these trends imply about

underlying process weaknesses and about the possibility of undesirable behaviour being encouraged by current targets.

Expansion plan

APS plans to enter a neighbouring market, Norland, within the next year. The chief executive officer (CEO) believes APS could gain early market share if it can demonstrate reliable lead times (how long it takes from order to delivery) and consistent quality. The initial plan is to sell via two distributors, with APS providing remote technical support from Soland.

However, the board is concerned that APS's internal capability may not support international expansion. For example, they are concerned about cross-border order fulfilment, distributor management, warranty claims and documentation for healthcare customers. The CEO is concerned about APS's overall internal readiness and improvements needed to people skills, organisation, processes and information systems (see Exhibit 3).

Ethical concern: shipment inflation allegation

APS uses a monthly bonus scheme for managers and supervisors. A whistleblower has alleged that some managers may be manipulating shipment numbers at month-end to trigger bonuses. For example, they may record a dispatch (a shipment leaving the warehouse) in the system before goods physically leave the site, or they may prioritise simple orders at month-end while delaying more complex customer orders into the next month. This risk may be increased because the bonus conditions are based on "units recorded as shipped" and an internal on-time delivery measure based on warehouse dispatch confirmation, rather than customer receipt and acceptance (see Exhibit 2).

Your role

You are an external business adviser with expertise in management accounting and performance measurement. You report to Helen Johnson, the CEO of APS, and have been asked to prepare a report for the APS board ahead of its June meeting.

The following exhibits provide information relevant to the requirements:

1. Email from COO
2. Performance report (extract)
3. Consultant note

Exhibit 1 – Email from COO

From: Sami Ahmed, COO
To: Helen Johnson (CEO); APS board
Date: 27 May 20X6
Subject: Delivery delays, inventory accuracy and overtime

Helen and board,

I am increasingly concerned that APS's operations are not stable enough to support current demand or the proposed expansion into Norland.

The main issues are as follows:

- Delivery performance is weakening. Our advertised lead time is six weeks, but late-delivery complaints have increased sharply, especially from healthcare customers who expect dependable delivery and quick response when problems occur.
- Inventory control is unreliable. System inventory often does not match physical inventory, particularly for battery units, filter modules and some sensor types. This means production teams may plan work based on records that are not accurate.
- Production planning is being disrupted. Units are sometimes started before all required components are available. This leads to stoppages, rescheduling and delays, and it also means that incomplete customer orders and partly assembled units are building up.
- Capacity is under pressure. Overtime has increased significantly, including weekend shifts, but this is not solving the underlying problems. Instead, it suggests that APS is relying on short-term effort to deal with operational weaknesses.
- Quality problems are increasing. Rework is rising, especially on the healthcare models. This creates extra pressure on capacity and increases the risk of delays, higher costs and customer dissatisfaction.
- Month-end behaviour is affecting normal operations. There is strong pressure to maximise shipments recorded in the system at the end of each month. As a result, staff are being diverted from routine inventory checks and other control activities, which may weaken operational discipline and encourage short-term actions.
- Reported performance may be hiding deeper problems. Shipment activity appears to be increasing, but delivery reliability, inventory accuracy and production control are getting worse. This suggests that APS needs to improve its underlying processes, not just push for higher reported output.

In my view, APS needs to stabilise planning, inventory records, lead times and quality before it can expand with confidence into Norland.

I look forward to discussing these concerns at our next meeting.

Regards,
Sami

Exhibit 2 – Performance report (extract)

APS management report (six months ended 31 May 20X6)

Measure	December 20X5	January 20X6	February 20X6	March 20X6	April 20X6	May 20X6
Customer orders received (units)	3,050	3,420	3,680	3,910	4,150	4,260
Units produced	3,120	3,450	3,710	3,760	3,980	4,050
Units recorded as shipped	3,090	3,480	3,720	3,980	4,160	4,320
On-time delivery rate (customer confirmed)	93%	91%	89%	87%	86%	84%
Orders older than 6 weeks (units)	120	165	210	255	290	312
Inventory record accuracy (based on a cycle-count sample)	96%	94%	92%	90%	88%	86%
Overtime hours (factory + warehouse)	820	940	1,120	1,380	1,620	1,710

Month-end shipment pattern (May 20X6)

Measure	First 18 working days	Last 2 working days	Total month
Units recorded as shipped	2,890	1,430	4,320
Units confirmed as received by customers by month-end	2,760	610	3,370

Bonus scheme note (operations and warehouse management)

Monthly bonus is triggered if both of the following conditions are met:

1. Units recorded as shipped exceed 4,100 units.
2. Internal "on-time delivery" is 90% or above (based on the promised dispatch date in APS's system and the dispatch confirmation recorded by the warehouse).

Exhibit 3 – Consultant note

Prepared by: Emma Harris, Harris Advisory
For: Helen Johnson (CEO) and James Tang (CFO)
Date: 22 May 20X6
Subject: Initial observations – costing and performance measurement

- APS allocates indirect costs to products using one method based on direct labour hours. This is increasingly unsuitable because indirect costs (testing, calibration, planning, maintenance, IT support) are now significant and labour is no longer the main cost driver.
- Healthcare models require more quality testing, documentation and inspection, so one allocation method risks inaccurate product costs and weak pricing and margin decisions.
- Inventory records are corrected through a mix of system entries and spreadsheets, creating inconsistent data and frequent month-end adjustments that operational managers do not understand.
- Definitions of measures are inconsistent (for example, "shipped" is based on warehouse dispatch recording, while customers care about receipt and acceptance), which can encourage behaviour that improves internal measures without improving customer outcomes.
- Expansion into Norland will add complexity (export documentation, distributor support, warranty escalation) and requires stable, reliable processes and trusted data.

Required:

Write a report to the board of APS, in which you address the following matters:

(a) Assess APS's internal capability and readiness for expansion using the POPIT (People–Organisation–Processes–Information Technology) model and recommend specific improvements.

(12 marks)

Professional skills marks are available for demonstrating *analysis* skills when assessing APS's internal capability and readiness using the POPIT model.

(3 marks)

(b) Assess why APS's costing and process-measurement system does not provide reliable information and recommend justified improvements.

(9 marks)

Professional skills marks are available for demonstrating *evaluation* skills when recommending justified improvements to APS's costing and process-measurement system.

(2 marks)

(c) Analyse the key internal performance risks which threaten APS's operational readiness for expansion and recommend actions to strengthen operational capability.

(9 marks)

Professional skills marks are available for demonstrating *commercial acumen* skills when identifying key internal performance risks and recommending practical actions.

(2 marks)

(d) Evaluate the ethical and behavioural issues raised by possible manipulation of shipment numbers to achieve bonuses and recommend actions to ensure responsible reward practices.

(10 marks)

Professional skills marks are available for demonstrating *scepticism* skills when evaluating the allegation and recommending controls and reward-practice improvements.

(3 marks)

(50 marks)

2 Company background

It is currently June 20X6.

MedTri Systems (MTS) is a privately owned healthcare technology company based in Ravennland. MTS develops and sells an AI-assisted triage platform called MedTriage which is used in hospital emergency departments and urgent-care clinics. Triage means prioritising patients for treatment based on urgency and clinical risk. MedTriage supports clinicians (qualified medical professionals) by producing an urgency category, a suggested urgency score and a short explanation. Clinicians remain responsible for the final decision.

MTS supplies MedTriage to five hospitals in Ravennland under three-year subscription contracts. Hospitals pay a fixed monthly subscription to use the platform plus a one-off implementation fee for integration work. Integration is the technical connection between MedTriage and a hospital's electronic health record system. Integration work differs by hospital site because hospitals use different data formats and different clinical workflow procedures.

Financial and operational pressure

MTS's cash position is under pressure. Development costs have increased, and Fatima Iqbal, chief executive officer (CEO), approved lower prices on recent subscription renewals to retain major customers and create model or ' reference sites' that can be used as a blueprint for new sites in an international expansion. Paul Edwards, finance director, has warned Lisa Mitchell, chair of the board (Chair), that investor funding is expected to last only until early 20X7 unless revenue grows, and that significant customer disputes could delay fundraising.

Hospitals are under strain due to staff shortages and higher patient demand. Clinicians are using MedTriage more often and are requesting faster support, clearer training, and more complete governance documentation. Two hospitals have requested tighter service levels. Service levels are promised performance standards, for example response times for critical incidents (such as downtime). One hospital has indicated it may request penalties be imposed on the supplier if incident reviews are not supported by adequate information to understand the issues and their resolution.

Performance, audit trail and release control concerns

Over the last six months, MTS has received increasing clinician complaints about reliability and explainability relating to MedTriage. Explainability means the tool can give a clear reason for its suggestion in a way a clinician can understand. For example, if MedTriage suggests "high urgency", the clinician expects a short explanation such as "high-risk symptoms recorded" or "abnormal vital signs entered", rather than a vague statement that does not support clinical notes. A clinical feedback log is generated if any issues are raised by the clinician in relation to the MedTriage suggestions. The clinical feedback log summarises the issues being raised and the effect on hospital confidence (see Exhibit 1).

Dr Rachel Green, clinical safety lead, has raised concerns about model drift. Model drift means model performance can change over time as patient patterns and data inputs change, so earlier performance may not continue unless it is monitored and adjusted. Daniel Carter, chief technology officer (CTO), has set out internal concerns about monitoring, audit trail quality and update controls (see Exhibit 2).

MTS's audit trail is intended to support clinical governance, including incident reporting and investigation. The audit trail records how the system reached an output. This information includes:

- the software model version used (as the MedTriage system is often upgraded to provide changes and improvements)
- the key inputs that were available (such as symptoms and vital signs)
- the urgency category suggested
- the explanation shown to the clinician

However, audit trail detail is inconsistent across hospitals due to integration differences, and there have been gaps when data feeds fail temporarily. Michael Huang, chief operating officer (COO), is concerned the board may not be able to demonstrate credible oversight unless governance and controls are strengthened. This is relevant to both the board evaluation and the expansion decision (see Exhibit 2).

Proposed expansion into Eastria

MTS is considering expansion into Eastria, where the healthcare regulator expects clear evidence on patient safety monitoring, governance arrangements, and audit trail completeness. Hospitals in Eastria commonly require review by senior clinicians and governance committees before adopting clinical technology.

Fatima Iqbal, the CEO, wants to sign two Eastria hospitals within six months. Michael Huang, the COO, needs a structured assessment of whether the expansion should proceed now using a recognised framework, and a review of a draft external briefing pack intended for Eastria's healthcare regulator and prospective hospital customers. The draft contains claims about performance and governance and includes business and financial information (see Exhibit 3).

Your role

You are the strategy and governance manager at MTS, reporting to the COO. Your role includes preparing board papers on strategy and governance, coordinating input from operations, technology, clinical safety and finance, and supporting the board in demonstrating robust oversight to external stakeholders. You have been asked to prepare a board report and a management memo which will be used to decide whether to proceed with the Eastria expansion and what actions must be completed before external engagement progresses.

The following exhibits provide information relevant to the requirements:

1. Clinician feedback log (clinical support portal extract)
2. Email from Daniel Carter, CTO
3. Draft external briefing pack for Eastria (extract)

Exhibit 1: Clinician feedback log (clinical support portal extract)
(The extract below summarises feedback received during April and May 20X6.)

Date (20X6)	Customer	Role submitting feedback and definition	Summary of feedback	Operational impact noted by the site
10 April	Rivergate Hospital Emergency Department (ED)	ED consultant (senior emergency doctor)	Two high-risk patients initially suggested as "low urgency". Clinicians overrode this and upgraded them to "urgent" after checks. Clinicians at the site ask about safety checks for rare but serious cases.	Requests formal written response for governance records.
18 April	Northfield Medical Centre	Senior clinician (experienced doctor responsible for clinical decisions)	Scores differ for similar cases after an update. Clinicians at the site ask how versions and local settings are controlled.	Requests advance notice and a clinician-friendly change summary.
02 May	Rivergate Hospital ED	Governance coordinator (administrator supporting incident logging and audit documentation)	Some cases missing entirely in audit trail. In addition, some cases that were included did not include an appropriate 'Model version' or input summary.	Warns this creates governance risk in external review.
06 May	Westbrook Hospital	Clinical governance lead (senior manager responsible for patient safety governance)	Requests a documented incident process and expected response times.	Says wider rollout will not be approved until documentation exists.

Date (20X6)	Customer	Role submitting feedback and definition	Summary of feedback	Operational impact noted by the site
15 May	Northfield Medical Centre	ED consultant (senior emergency doctor)	“Overrides” are much more frequent since the last update. An override occurs when MedTriage suggests an urgency category but the clinician decides a different category using judgement. The site asks how “drift” is monitored. Drift means the model’s performance changes over time as patient patterns or data inputs change.	Suggests pausing updates until monitoring is in place.
31 May	Westbrook Hospital	ED consultant (senior emergency doctor)	Requests performance results by patient category and asks whether any groups are higher risk.	Requests evidence of consistency and clear disclosure of limitations.

Exhibit 2: Email from Daniel Carter, CTO

From: Daniel Carter, CTO
To: Michael Huang, COO; Dr Rachel Green, Clinical Safety Lead
Date: 30 May 20X6
Subject: Monitoring, audit trail and update controls – key points before Eastria expansion

Michael and Rachel,

I want to summarise the main issues we should address before we proceed with the Eastria expansion.

For clarity, an override occurs when MedTriage suggests an urgency category but the clinician decides a different category. For example, MedTriage suggests "low urgency", but the clinician upgrades the patient to "high urgency" based on their judgement.

1. **We retrained the model twice since January 20X6 because patient patterns and hospital data feeds changed**
   We are seeing early warning signs at Northfield. Overrides are higher, and scores are not consistent for similar cases. For example, two patients recorded with similar symptoms in the same week received different urgency categories after the most recent update, and clinicians have said the explanation text also changed between similar cases without a clear reason.

2. **Monitoring after go-live is limited**
   We are building a dashboard to track overrides and a small set of safety measures. We have not agreed the thresholds that should trigger investigation or a pause in updates.

3. **Audit trail information is not consistent between hospitals**
   Some sites store fewer inputs, and some sites do not reliably keep the explanation text. We also have gaps when an electronic record feed fails. Rivergate has reported cases where the audit trail is missing the model version and the input summary.

4. **Updates are frequent**
   Clinical sign-off is not required for every release, including some updates treated as minor. Release notes are technical and not written for clinicians. This increases the risk that clinicians are not aware of changes which may affect scoring behaviour.

We need to address these issues before proceeding with the Eastria expansion.

Daniel

Exhibit 3: Draft external briefing pack for Eastria (extract)

The board has requested a review of whether this draft is suitable to share with a regulator and prospective hospital customers.

Section	Extract from draft briefing pack (as written)	Evidence or information included elsewhere in the draft pack
Executive summary	"MedTriage improves speed and accuracy of triage decisions and reduces waiting-time pressures."	One page summary chart headed "Operational impact" showing average triage time before and after implementation at two sites, plus a short paragraph describing clinician feedback.
Validation results	"Validation results show high accuracy across all key categories."	One table showing overall accuracy and sensitivity measures, with a note that results are based on "real hospital data".
Governance	"MTS has strong governance and clinical oversight, led by Dr Rachel Green, clinical safety lead."	Organisation chart showing reporting lines and a short paragraph describing clinical oversight activities such as review meetings and incident review.
Commercial model	"Hospitals subscribe on a monthly basis with a one-off implementation fee for integration."	One slide summarising standard pricing components, contract length and renewal terms. The slide includes an optional "performance-based service credit" clause. A 'service credit' is a penalty imposed on the supplier where performance has been poor, effectively refunding the customer for that element of service provided.
Financial highlights	"MTS has achieved strong revenue growth and is investing significantly in product development."	Chart showing subscription revenue growth since 20X4 and total product development spend, without explaining accounting treatment or the basis of preparation.
Profitability	"The MedTriage product generates attractive margins for MTS."	One slide showing a MedTriage "gross margin" percentage and a short list of costs included, but no explanation of cost allocation approach.
Limitations	"Clinicians remain responsible for the final decision."	Screenshot showing urgency score and explanation line, and a short statement describing intended use in clinical workflow.

A covering email from Fatima Iqbal, the CEO, states that the pack is intended for Eastria's healthcare regulator and two prospective hospitals, and that it may be shared within two weeks unless the board asks for changes.

Required:

Write a report to the Board of MedTri Systems (MTS), addressed to Lisa Mitchell, chair of the board, in which you:

(a) Assess whether expansion into Eastria is appropriate, using the SAF (Suitability–Acceptability–Feasibility) framework, and recommend whether MTS should proceed, modify or delay.

(13 marks)

Professional skills marks are available for demonstrating *analysis* skills when analysing the expansion decision using SAF and case evidence.

(3 marks)

(b) Evaluate how effectively MTS's leadership and governance systems oversee MedTriage and recommend improvements appropriate for a regulated expansion.

(10 marks)

Professional skills marks are available for demonstrating *evaluation* skills when evaluating MTS governance effectiveness and recommending justified improvements.

(2 marks)

Write a memo to Michael Huang, COO, in which you:

(c) Assess how MTS is working with key clinical stakeholders by analysing each of their roles, claims and interests, and recommend actions to improve trust, communication and cooperation during expansion.

(12 marks)

Professional skills marks are available for demonstrating *commercial acumen* skills when prioritising stakeholder actions that protect adoption, reputation and expansion timing.

(3 marks)

(d) Assess whether the draft briefing pack provides useful financial and business information for external users, applying the qualitative characteristics of useful financial information including disclosure, and recommend improvements before the pack is shared.

(5 marks)

Professional skills marks are available for demonstrating *communication* skills for communicating clear, audience-appropriate improvements to external financial/business disclosures.

(2 marks)

(50 marks)

End of question paper