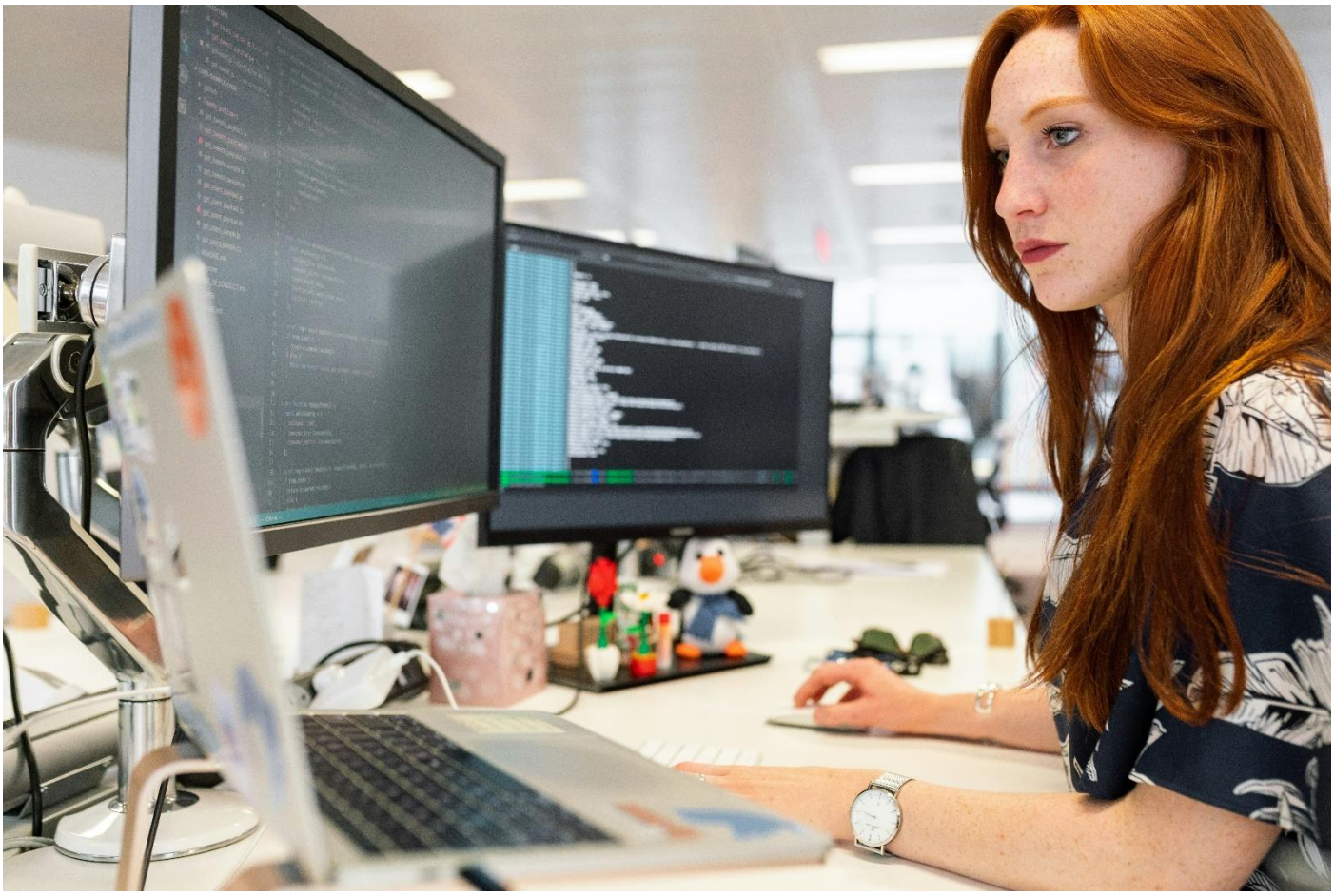

ICTICT517

Match ICT needs with the strategic direction of the organisation

Assessment 1 of 4

Short Answer Questions

Assessor Guide

Version 1

Assessment Instructions

Task Overview

This assessment task is divided into six (6) short answer questions. Read each question carefully before typing your response in the space provided.

Important: Before commencing your work, you must update your *Student name* and *Student number* in the footer from **page 2** onwards.

Additional Resources and Supporting Documents

To complete this assessment, you will need:

- Learning Material

Assessment Information

Submission

You are entitled to three (3) attempts to complete this assessment satisfactorily. Incomplete assessments will not be marked and will count as one of your three attempts.

All questions must be responded to correctly to be assessed as satisfactory for this assessment.

Answers must be typed into the space provided and submitted electronically via the Learning Platform. Hand-written assessments will not be accepted unless previously arranged with your assessor.

Reasonable adjustment

Students may request a reasonable adjustment for assessment tasks.

Reasonable adjustment usually involves varying:

- the processes for conducting the assessment (e.g. allowing additional time)
- the evidence gathering techniques (e.g. oral rather than written questioning, use of a scribe, modifications to equipment)

However, the evidence collected must allow the student to demonstrate all requirements of the unit.

Refer to the Student Handbook or contact your Trainer for further information.

Please consider the environment before printing this assessment.

Question 1

Complete the table about key sections of an action plan for ICT implementation projects below.

- In your own words, define each key section of the action plan provided below.
- In your own words, briefly describe the purpose of each key section in the implementation of ICT projects.

Assessor instructions: Students must complete the table below about key sections of an action plan for ICT implementation projects.

The acceptable responses must:

- Be within the specified word limit.
- Reflect the characteristics described in the exemplar answer.
- Definition: For satisfactory performance, the student's response must state the scope of each of the provided key sections relevant to an ICT action plan.
- Purpose: For satisfactory performance, the student's responses must include the functions of the corresponding key sections of the action plan in implementing ICT projects.

Benchmark answers are provided below.

Key Sections of the Action Plan	Definition [Approx. word count: 10 – 30 words per section]	Purpose [Approx. word count: 30 – 60 words per section]
a. Objective	This section outlines the desired outcomes or results that the action plan aims to accomplish.	The objective key section helps focus efforts and resources on what matters most in the action plan for the ICT projects. It prevents the ICT action plan from becoming too broad or unfocused. This section helps ensure that the actions taken are focused on the strategic implementation of ICT projects in the organisation.
b. Tasks	This section outlines the specific actions or activities that need to be performed to achieve the stated objective.	Task descriptions break down complex objectives into actionable steps. This key section makes planning, assigning, and executing work related to implementing ICT projects easier. This section promotes clarity and understanding of the ICT project's workflow. It helps organise efforts, assign responsibilities and identify and accomplish all necessary activities.
c. Task Owners	This section outlines the individuals or teams assigned to complete the tasks.	Assigning task owners clarifies responsibilities, fosters accountability, and streamlines communication in implementing ICT action plans. This section ensures efficient tracking of the progress of the tasks. It designates responsible parties for

		updates or resolutions of issues encountered during ICT project implementation.
d. Timeline	This section specifies the timeframes and deadlines associated with each task. It outlines when each task is expected to start and when it should be completed.	Timelines establish a structured project schedule. This section helps in facilitating the ICT project planning and execution. It enables tracking the project progress, identification of critical tasks and adherence to specified deadlines.
e. Resources	This section outlines the materials, equipment, funding, and human resources required to complete tasks.	Resource allocation ensures that the right resources for implementing the action plan for ICT projects are available. This section helps minimise delays and conflicts in completing the relevant tasks. It optimises resource utilisation throughout the project, contributing to efficient task execution.
f. Dependencies	This section outlines relationships between tasks, indicating which tasks must be completed before others can start.	Identifying dependencies is crucial for task sequencing in the ICT action plan. This section ensures that the tasks are undertaken in a logical order. This minimises delays, promotes a smooth project flow, and prevents bottlenecks.
g. Monitoring	This section outlines the details of data collection methods, frequency of reporting, responsible parties, and any necessary actions to maintain alignment of the action plan with strategic objectives.	This section aims to assess and track the progress of the implementation of the ICT action plan over time. This allows stakeholders to gauge how well the plan delivers results and meets its intended outcomes.
h. Evaluation	This section outlines the methodologies, criteria, and processes employed to gather, analyse, and interpret data and feedback related to the plan's implementation.	Its primary purpose is to provide a comprehensive framework for gauging the success of ICT efforts, measuring their alignment of the ICT action plan with strategic goals, and facilitating evidence-based decision-making to optimise future technology investments and strategies.

Question 2

a. Complete the table below about methods of evaluation for technical problems of ICT systems and products.

- In your own words, define each method of evaluation for technical problems of ICT systems and products.
- In your own words, briefly explain how each method can be used to assess the technical problems of ICT systems and products.

Assessor instructions: Students must complete the table below about methods of evaluation for technical problems of ICT systems and products.

The acceptable responses must:

- Be within the specified word limit.
- Reflect the characteristics described in the exemplar answer.
- Definition of the Method of Evaluation for Technical Problems: For satisfactory performance, the student's responses must be the function of each method relevant to evaluating ICT systems and products' technical problems.
- How it can be Used to Assess Technical Problems: For satisfactory performance, the student's responses must include ways to apply the method in identifying or understanding the nature of the technical ICT system and product issues.

Benchmark answers are provided below.

Method of Evaluation for Technical Problems	Definition of the Method of Evaluation for Technical Problems [Approx. word count: 40 – 60 words per section]	How it can be Used to Assess Technical Problems [Approx. word count: 40 – 60 words per section]
i. Technical impact analysis	Technical Impact Analysis is a method used to evaluate and assess the potential consequences and effects of technical problems or issues in ICT systems and products. This analysis is typically conducted to understand the severity and implications of a technical issue, which can range from software bugs and hardware failures to security vulnerabilities and performance bottlenecks.	This method can be used to identify technical issues by implementing monitoring mechanisms that capture technical issues, such as software crashes and performance degradation. The method can also be used to assess the impact and severity of the issue by gathering data related to the technical issue, including error messages, logs, system metrics and security threats.

ii. User acceptance testing (UAT)	User Acceptance Testing (UAT) is a method of evaluation used for assessing technical problems and ensuring the overall quality and functionality of ICT systems and products. UAT is primarily focused on the end-users' perspective and their acceptance of the system or product.	This method can be used to evaluate the user interface to identify any technical issues related to design, navigation, responsiveness or accessibility that may hinder the user experience. Users can test the system or product to check data integrity and accuracy. They can check for any technical issues related to data input, storage, retrieval and manipulation.

b. Complete the table below about methods of evaluation for the strategic objectives of an organisation.

- In your words, define each method of evaluation for the strategic objectives of the organisation.
- In your own words, briefly explain how each method can be used to assess the strategic objectives of an organisation.

Assessor instructions: Students must complete the table below about methods of evaluation for the strategic objectives of an organisation.

The acceptable responses must:

- Be within the specified word limit.
- Reflect the characteristics described in the exemplar answer.
- Definition of the Method of Evaluation for Strategic Objectives: For satisfactory performance, the student's responses must be the function of each method of evaluation relevant to the strategic objectives of an organisation.
- How it can be Used to Assess the Strategic Objectives: For satisfactory performance, the student's responses must correspond to the ways to check if strategic objectives are met using the given method of evaluation.

Benchmark answers are provided below.

Method of Evaluation for Strategic Objectives	Definition of the Method of Evaluation for Strategic Objectives [Approx. word count: 40 – 50 words per section]	How it can be Used to Assess the Strategic Objectives [Approx. word count: 50 – 70 words per section]
i. Goal alignment check	Goal alignment check is a method used to evaluate and ensure the congruence and coherence between	This method can be used to track if objectives are met by maintaining a comprehensive list of strategic initiatives

	an organisation's strategic objectives and its ICT-related goals, projects and initiatives. It involves assessing whether ICT activities and investments are directly supportive of the organisation's overarching strategic vision and mission.	and projects, noting which objectives they are intended to support. This method can also track the progress, status and outcomes of these initiatives to determine if they contribute to the achievement of strategic objectives.
ii. **Key performance indicators (KPIs)**	Key performance indicators are quantifiable metrics used to measure and assess the performance and progress of an organisation toward achieving its strategic objectives. KPIs provide a clear and objective way to gauge how effectively an organisation is meeting its strategic goals.	This method can be used to set KPI target values or thresholds for each strategic objective. These targets should represent the desired level of performance or achievement for the associated strategic objective. To assess if strategic objectives are met, continuously monitor the KPIs over time, tracking performance against the established targets. This way, you can determine if KPIs consistently meet or exceed their targets or fall short.

Question 3

a. Complete the table below about the planning approaches to technical problems for ICT systems and products.

- In your own words, define each of the planning approaches to technical problems for ICT systems and products.
- In your own words, briefly explain how each approach is used to address the technical problems for ICT systems and products.

Assessor instructions: Students must complete the table below about the planning approaches to technical problems for ICT systems and products.

The acceptable responses must:

- Be within the specified word limit.
- Reflect the characteristics described in the exemplar answer.
- Definition: for satisfactory performance, the student's responses must be the function of the approach relevant to addressing the technical problems for ICT systems and products
- How it can be Used to Address Technical Problems: For satisfactory performance, the student's responses must be ways of identifying or addressing technical problems for ICT systems and products through the provided planning approaches.

Benchmark answers are provided below.

Planning Approaches to Technical Problems	Definition [Approx. word count: 30 – 50 words per section]	How it can be Used to Address Technical Problems

		[Approx. word count: 70 – 90 words per section]
i. **Root cause analysis**	Root cause analysis aims to uncover the underlying causes of the technical problem rather than just addressing symptoms. Its purposes include identifying the fundamental reasons behind issues, preventing recurrence and improving overall system reliability and efficiency.	This approach can be used by analysing a clearly documented problem. Document the technical problem or issue, including its symptoms, impact and any relevant context. This may include logs, error messages, incident reports, user feedback and other relevant documentation. Use techniques like fishbone diagrams to explore the cause-and-effect relationships associated with the problem. This helps identify potential root causes and develop solutions. These solutions should aim to prevent the problem's recurrence and may involve changes in processes, technology, training or policies.
ii. **Capacity planning**	Capacity planning helps determine the optimal level of resources and capabilities required to meet ICT demands. It ensures that ICT systems and products can handle technical challenges and problems. This method enables the assessment of the ICT system or product's capacity to handle workloads, data processing and user demands.	Continuously monitor the performance of ICT systems and products. Use performance monitoring tools to collect data on resource utilisation, response times and other relevant metrics. Analyse resource utilisation data to identify trends and patterns. Look for instances of resource bottlenecks or overutilisation that may lead to technical problems. Forecast or use historical performance data to make future capacity projections. You can predict when and where additional resources may be needed based on usage trends and growth expectations.

b. Complete the table below about the planning approaches to strategic objectives of an organisation.

- In your own words, define each planning approach to the strategic objectives of an organisation.

- In your own words, briefly explain how each planning approach is used to help the organisation achieve its long-term goals.

Assessor instructions: Students must complete the table below about the planning approaches to the strategic objectives of an organisation.

The acceptable responses must:

- Be within the specified word limit.
- Reflect the characteristics described in the exemplar answer.
- Definition: For satisfactory performance, the student's responses must be the function of each planning approach relevant to evaluating the strategic objectives of the organisation.
- How it can be Used to Achieve the Organisation's Long-Term Goals: For satisfactory performance, the student's responses must be the ways that demonstrate how each planning approach helps in resource allocation or risk management to help the organisation achieve their long-term goals.

Benchmark answers are provided below.

Planning Approaches to Strategic Objectives	Definition [Approx. word count: 40 – 60 words per section]	How it can be Used to Achieve the Organisation's Long-Term Goals [Approx. word count: 70 – 90 words per section]
i. SWOT Analysis	SWOT analysis is a strategic planning approach that evaluates the strengths, weaknesses, opportunities and threats of an ICT system or product. Identifying these factors guides strategic decision-making, enabling organisations to leverage strengths, address weaknesses, capitalise on opportunities and mitigate threats in pursuit of their strategic objectives.	It can be used to identify the strengths and weaknesses of an organisation. The results of a SWOT analysis assist in the efficient allocation of resources. Organisations can prioritise investments in areas where they have strengths and work on improving weaknesses to maximise resource utilisation. The analysis can also be used to highlight potential threats to the organisation. It allows organisations to develop risk mitigation strategies and contingency plans, reducing the impact of unforeseen events on long-term goals.
ii. Gap analysis	Gap analysis is used to compare the existing system's or product's performance, capabilities and features with the ideal or expected standards and requirements. This approach helps organisations identify where they fall short of their strategic goals, facilitating targeted strategies and action plans to bridge these gaps and achieve strategic objectives effectively.	It can be used as a guide in conducting a thorough analysis of the organisation's current resources, including financial, human and technological assets, as part of the gap analysis process. It can be used to compare the organisation's current resources to the requirements identified for achieving long-term goals. Identify resource gaps, including shortfalls in budget, personnel or technology. Prioritise resource needs based on their criticality to closing the identified gaps and achieving

		long-term goals. Allocate resources to areas with the greatest impact on goal attainment.

Question 4

Read the scenarios about the method of evaluation for competing internal and external ICT systems and products and answer the questions.

Charles, an IT Office Manager, is responsible for evaluating Human Resource Information Systems (HRIS) for his organisation. He needs to determine the most cost-effective and beneficial HRIS system that aligns with the organisation's needs. The organisation is seeking an HRIS solution to efficiently manage employee records, payroll, benefits administration and performance evaluations.

Assessor instructions: Students must read the scenarios about the method of evaluation for competing internal and external ICT systems and products and answer the questions

Students are likely to use wording different from the sample answer provided. However, the acceptable responses must:

- Be within the specified word limit.
- Reflect the characteristics described in the exemplar answer.

Benchmark answers are provided below.

Scenario 1 The organisation currently employs HRProConnect and TalentLink360. As part of his evaluation, he must assess those competing internal HRIS systems.
a. Identify what method of evaluation was used based on the scenario.
The student must identify what method of evaluation was used based on the scenario. The correct answer is: Cost-benefit analysis
b. In your own words, explain how Charles can apply the identified method in assessing the costs of the competing internal HRIS systems. [Approximate word count: 40 – 60 words]
In their own words, the students must explain how Charles can apply the identified method in assessing the costs of the competing internal HRIS systems. Although wording will vary, for satisfactory performance, the student's responses must include specific actions performed in estimating the costs of implementing each of the internal HRIS systems.

The benchmark answer is provided below:

Charles can begin by identifying all costs associated with each internal HRIS system. This includes upfront expenses such as initial setup costs, licensing and implementation fees, as well as ongoing costs like maintenance and support. He should ensure he captures both direct and indirect costs, establishing a comprehensive cost baseline.

c. In your own words, explain how Charles can apply the identified method in assessing the benefits of the competing internal HRIS systems.

[Approximate word count: 40 – 60 words]

In their own words, students must explain how Charles can apply the identified method in assessing the benefits of the competing internal HRIS systems.

Although wording will vary, for satisfactory performance, the student's responses must include specific actions performed when evaluating the positive outcomes of implementing each of the internal HRIS systems.

The benchmark answer is provided below:

To assess the benefits, Charles should focus on the expected gains from each HRIS system. These may include time savings, increased accuracy in payroll, streamlined benefits administration and enhanced performance evaluations. Charles should quantify these benefits wherever possible and estimate their monetary value, aligning them with the organisation's HR management goals.

Scenario 2

Charles did more research about different HRIS systems that can help the organisation reach its bigger goals. During his research, he came across two external HRIS systems. Each of the systems has unique features designed to compete with other external HRIS systems on the market. The systems are called HRCompliancePro and HRConnect. These systems are entirely new to the company and are both provided by third-party vendors.

Charles decided to evaluate the HRCompliancePro system by selecting a group of employees to act as beta-testers. Their objective was to assess the system's functionality, usability and performance thoroughly. Charles aimed to determine how it stacked up against competing external HRIS systems in the market.

a. Identify what method of evaluation was used based on the scenario.

The student must identify what method of evaluation was used based on the scenario.

The correct answer is:

User acceptance testing

b. In your own words, explain how Charles can apply the identified method in assessing the chosen external HRIS system.

[Approximate word count: 60 – 80 words]

In their own words, students must explain how Charles can apply the identified method in assessing the chosen external HRIS system.

Although wording will vary, for satisfactory performance, the student's responses must include specific actions performed when implementing user acceptance testing.

The benchmark answer is provided below:

User acceptance testing (UAT) for the competing external HRIS system involves selecting a group of employees to test the system. Charles can instruct the beta-testers to use HRCompliancePro as they would in their daily roles, collecting feedback on usability, functionality and alignment with organisational needs. This hands-on testing approach ensures that end-users find the system effective, efficient and user-friendly. Their feedback will help assess the system's suitability for broader implementation and alignment with the organisation's goals.

Question 5

Read the scenarios about the method of evaluation for complementary internal and external ICT systems and products and answer the questions.

Lindsay is an IT Director at an online publishing company. She is tasked with evaluating complementary internal ICT systems: the Content Management System (CMS) and Search Engine Optimisation (SEO). The company relies on digital content and aims to improve its visibility on search engines. Lindsay needs to choose systems that will enhance content management and SEO efforts. This will align with the organisation's goal of improving content visibility and search engine rankings.

Assessor instructions: Students must read the scenarios about the method of evaluation for complementary internal and external ICT systems and products and answer the questions.

Students are likely to use wording different from the sample answer provided. However, the acceptable responses must:

- Be within the specified word limit.
- Reflect the characteristics described in the exemplar answer.

Benchmark answers are provided below.

Scenario 1

Lindsay is determined to evaluate the current systems to improve the company's products. To start the evaluation process, she formed a cross-functional team to assess the integration of the CMS and SEO systems. They conducted various tests to evaluate how well the CMS and SEO tools work together.

a. Identify what method of evaluation was used based on the scenario.

The student must identify what method of evaluation was used based on the scenario.

The correct answer is:

Integration testing

b. In your own words, explain how Lindsay can apply the identified method in assessing the complementary internal ICT systems.

[Approximate word count: 80 – 100 words]

In their own words, students must explain how Lindsay can apply the identified method in assessing the complementary internal ICT systems.

Although wording will vary, for satisfactory performance, the student's responses must include specific actions performed when evaluating how the CMS and SEO tools interact using the method of integration testing.

The benchmark answer is provided below:

Lindsay can apply integration testing to assess the complementary internal ICT systems (CMS and SEO tools). This involves defining the scope and objectives of the integration testing process. She identifies what aspects of the systems/products will be tested, the testing environment and the resources required. The process also involves creating test scenarios where the systems interact, such as publishing content through the CMS and tracking SEO tool analysis. By measuring efficiency, real-time updates and accuracy, she ensures they seamlessly integrate and meet the organisation's SEO and content management objectives.

Scenario 2

Lindsay realises that there is an opportunity to further enhance their content management and SEO efforts by considering complementary external ICT systems. These external systems could provide specialised features and capabilities that can boost the company's online presence.

Lindsay forms a task force consisting of IT specialists, content creators and SEO experts. Their goal is to assess the compatibility of external ICT systems with the existing internal infrastructure.

a. Identify what method of evaluation was used based on the scenario.

The student must identify what method of evaluation was used based on the scenario.

The correct answer is:

Compatibility testing

b. In your own words, explain how Lindsay can apply the identified method in assessing the complementary external ICT systems.

[Approximate word count: 60 – 80 words]

In their own words, students must explain how Lindsay can apply the identified method in assessing the complementary external ICT systems.

Although wording will vary, for satisfactory performance, the student's responses must include specific actions performed when evaluating how the external ICT system works with the existing internal system using compatibility testing.

The benchmark answer is provided below:

Lindsay can apply compatibility testing by creating a controlled test environment mirroring the organisation's setup. The task force installs and evaluates external ICT systems to ensure seamless integration with internal infrastructure. They assess data flow, migration, user experience, performance, security and scalability. The team evaluates the user interface and experience. This ensures that employees can work seamlessly with both internal and external systems. This method ensures that selected systems align with company goals.

Question 6

Complete the table below about the current and emerging system and product trends and directions.

- Identify at least one example for each of the ICT systems and product trends that can be used to achieve the strategic objectives of an organisation.
    - Current
    - Emerging
- In your own words, briefly describe the impact of each identified example of an ICT system or product trend.

Assessor instructions: Students must complete the table below about the current and emerging system and product trends and directions.

Students are likely to use wording different from the sample answer provided. However, the acceptable responses must:

- Be within the specified word limit.
- Reflect the characteristics described in the exemplar answer.
- Examples of ICT System or Product Trends: The student must identify at least one example for each of the ICT system and product trends that can be used to achieve the strategic objectives of an organisation.
- Direction of ICT System or Product Trends: For satisfactory performance, the student's responses must be the direction of the features of the identified example of an ICT system or product trend.

Benchmark answers are provided below.

ICT System and Product Trends	Examples of ICT System or Product Trends	Direction of ICT System or Product Trends *Explain where this new ICT System and Product Trend is taking the industry.* [Approximate word count: 50 – 80 words]
a. Current system trends	For satisfactory performance, the student's response must be an up-to-date type of software, application or network representing the latest	If the candidate identified AI systems as their example of a current system trend, their response must be:

	technological developments organisations commonly used to help them achieve their strategic goals. Benchmark answers include: ▪ Artificial Intelligence (AI) systems ▪ Cloud computing adoption ▪ 5G connectivity ▪ Internet of Things (IoT)	Current system trends like AI adoption involve integrating AI-powered solutions into business operations. AI algorithms can enhance data analysis, automation, and decision-making, improving operational efficiency and customer experiences. This is because AI algorithms can extract valuable insights from large and complex datasets through pattern recognition, predictive analytics, and data visualisation.
b. Current product trends	For satisfactory performance, the student's response must be a gadget, device, or application that organisations use to help them achieve their strategic goals. Benchmark answers include: ▪ AI assistants ▪ 5G compatible devices ▪ Augmented and Virtual Reality (AR/VR) devices ▪ Cybersecurity products	If the candidate identified AI assistants as their example of a current product trend, their response must include the following: AI assistants are moving towards greater integration into daily life and diverse applications. AI-powered virtual assistants are becoming more sophisticated, providing not only voice-based assistance but also data analysis, automation, and personalised recommendations. This trend indicates that AI assistants are increasingly focused on enhancing convenience, efficiency, and user experiences across multiple domains.
c. Emerging system trends	For satisfactory performance, the student's response must be a specific type of recently developed software, application or network that is just beginning to be adopted by organisations. Benchmark answers include: ▪ Edge computing ▪ Quantum computing ▪ Serverless computing	If the candidate identified edge computing as their example of an emerging system trend, their response must include the following: Edge computing is moving towards becoming an essential component of modern IT infrastructure. As more devices are connected to the internet and generate large amounts of data, the need for processing this data closer to the source, at the 'edge' of the network, is growing. This direction is driven by the demand for real-time processing, reduced latency, enhanced security, and the ability to support applications

		like the Internet of Things (IoT) and artificial intelligence (AI) at the edge.
d. Emerging product trends	For satisfactory performance, the student's response must be a gadget, device, or application that is yet to be implemented by organisations as a mainstream ICT product. Benchmark answers include: ▪ Edge computing devices ▪ Quantum computing hardware ▪ Blockchain hardware wallets	If the candidate identified edge computing hardware as their example of an emerging product trend, their response must include the following: There is a growing emphasis on designing hardware components that are specifically tailored for edge computing tasks. This includes the development of smaller, energy-efficient processors and memory and storage solutions that can be deployed in edge devices. The direction is also towards enhancing the capabilities of edge hardware to support real-time processing, AI and machine learning workloads and improved security mechanisms.

Assessment submission checklist

Students must have completed all questions within this assessment before submitting. This includes:

1	Six (6) short answer questions completed in the spaces provided.	☐

Assessment feedback

Assessors are to indicate the assessment outcome as Satisfactory (S) or Not Yet Satisfactory (NYS).

Assessor comments:	☐ S	☐ NYS

Congratulations, you have reached the end of Assessment 1!