# Assessment event 1 of 4: Knowledge

## Criteria

### Unit code and name

Cluster | ICT Analysis

BSBCRT404 | Apply advanced critical thinking to work processes

ICTICT426 | Identify and evaluate emerging technologies and practices

ICTSAS432 | Identify and resolve client ICT problems

### Qualification/Course code and name

Select your Qualification/Course code and name from the dropdown.

ICT40120 | Certificate IV in Information Technology

## Student details

Student name

Student number

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment event overview** | The aim of this assessment event is to assess your knowledge in critical thinking, emerging technologies and practices and provide ICT support.  This assessment is in 5 parts:   * Part 1: Working in ICT * Part 2: Critical thinking in the workplace * Part 3: Emerging technology and practices * Part 4: ICT professional skills * Part 5: Working in ICT support   And is supported by:   * Assessment feedback   **Note**: This assessment may contain links to external resources. Access to the long URL is provided via the [External resources – Links and URLs](#_External_resources_–) section located at the end of this document. |
| **Unit assessment guide** | Refer to the unit assessment guide (UAG) before attempting this assessment event. The UAG contains information including assessment requirements and how to achieve a satisfactory result. |
| **Submission instructions** | When you complete this assessment, submit it for marking:   * keep a copy of all the electronic and hardcopy assessments you submit to TAFE NSW * make sure you have completed the assessment declaration before you submit. |

## Part 1: Working in ICT

Read each question carefully and answer by selecting the appropriate response.

1. Identify **4** components of a workplace procedure.

Table 2 Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. Title, purpose and scope |  |
| 1. Steps and processes |  |
| 1. Responsibilities |  |
| 1. Related documents |  |
| 1. Strategic objective |  |
| 1. Names of team members |  |

1. Select **3** purposes of workplace procedures.

Table 3 Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. To provide general guidance on an area of operations |  |
| 1. To ensure work activities are performed in a consistent and standardised way |  |
| 1. To identify job role tasks and responsibilities for a work activity |  |
| 1. To summarise legislation and regulations relevant to organisation’s products or services |  |
| 1. To ensure processes meet organisational and regulatory requirements |  |

1. Select **3** limitations of workplace procedures.

Table 4 Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. Linked to other workplace policies and procedures |  |
| 1. Require regular monitoring for currency and completeness |  |
| 1. Can be inflexible in adapting to new ICT technology or practices |  |
| 1. All workers completing the same work task use the same procedure |  |
| 1. Time and resources to develop, communicate and maintain |  |

1. Match the legislative requirement to the ICT work procedure.

Table 5 Matching

| Legislative requirement | Answer | Workplace procedure |
| --- | --- | --- |
| Work Health and Safety Act 2011 requirement for organisations to provide safe systems of work and for workers to comply with reasonable instructions |  | 1. Recruitment, induction and hiring procedure |
| Privacy Act 1998 requirement to protect the personal information of individuals when collecting, using, storing and disclosing information |  | 1. ICT communications procedure for website content |
| NSW Anti-discrimination Act makes it unlawful to discriminate against, sexually harass, or bully a fellow employee |  | 1. Manual handling procedure |
| Copyright Regulations 2017 protect works including photographs, software, website content |  | 1. Records and information management procedure |
| Fair Work Act that requires organisations to have policies to ensure compliance with legal employment practices |  | 1. Code of conduct policy and complaints procedure |

1. Read the statements about legislative requirements related to ICT procedures carefully and indicate **True** or **False**.

Table 6 True or false

| Statement | True or False |
| --- | --- |
| The Privacy Act allows individuals to remain anonymous, be informed and provide their consent before the organisation uses their personal information. |  |
| The Copyright Act 1968 allows individuals to make a complaint if their private data has been mishandled by an organisation. |  |
| The Protection of the Environment Operations Act 1997 includes regulations for the content on organisational sustainably procedures. |  |
| The Work Health and Safety Act requires all persons conducting a business to provide instruction, information and supervision to workers, including contractors and trainees. |  |
| Workers conducting ICT maintenance must be provided with safety procedures, appropriate safety equipment and training. |  |

1. Match the source of reliable information to the workplace activity.

Table 7 Matching

| Workplace procedure | Answer | Source of reliable information |
| --- | --- | --- |
| Software options for upgrade |  | 1. State regulations and local Council |
| Current IT equipment procurement steps |  | 1. Team leader and manager |
| e-waste disposal |  | 1. Organisational procedure |
| Notifying a data breach |  | 1. Industry specialists and vendors |

1. Select **3** sources of information relevant to analysing and evaluating **workplace procedures**.

Table 8 Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. Primary sources such as interviews with users |  |
| 1. International academic articles published by research journals |  |
| 1. Technical documents from vendors and manufacturers |  |
| 1. Social media blogs |  |
| 1. Reliable technology websites |  |

1. Select **3** sustainable practices relevant to the Information and Communications Technology industry.

Table 9 Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. Place all e-waste into general waste |  |
| 1. Automatic shutdown or hibernation mode processes for computers after hours |  |
| 1. Replacing computers and accessories yearly |  |
| 1. Consideration of Energy Star ratings in the procurement of equipment |  |
| 1. Use of video and desktop conferencing technologies to replace face-to face meetings requiring physical travel |  |

1. Match the ICT practice and procedure to the environmentally sustainable impact.

Table 10 Matching

| ICT practice | Answer | Sustainable impact |
| --- | --- | --- |
| Communicate IT energy use and options to reduce energy consumption |  | 1. Older hardware is maintained or recycled |
| Compare the age and use of ICT hardware to current products and consider disposal options |  | 1. Fewer carbon miles and greenhouse emissions from transport and products comply with strict environmental standards |
| Use ICT to analyse and optimise mass production processes |  | 1. Better workforce understanding of energy use, decreased consumption and impact on environment |
| Utilise renewable energy alternatives to power ICT systems |  | 1. Improved production efficiency, savings in production costs and reduced energy usage |
| Sourcing from local vendors rather than from overseas |  | 1. Decrease the carbon footprint related to the power use of ICT systems |

1. Select **4** best practice guidelines for ensuring the security of an ICT workplace and its network.

Table 11 Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. Protect the organisation’s data by developing policies and procedures for reporting suspicious emails or malware |  |
| 1. Frequently update the organisation’s firewall to avoid phishing emails and malware |  |
| 1. Be transparent on data collection and usage policy to be communicated to external stakeholders |  |
| 1. Impose stricter password policy and multi-factor authentication |  |
| 1. Avoid all risks by reverting to paper-based operations |  |
| 1. Implement a risk management approach to network security |  |

1. Select **3** purposes of network security procedures.

Table 12 Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. To reduce the likelihood security threats or incidents |  |
| 1. To safeguard the confidentiality, integrity and availability of organisational information and communication technology assets |  |
| 1. To slow down operations |  |
| 1. To allow employees to add any application to a work computer |  |
| 1. To prevent users inadvertently creating a risk to security |  |

## Part 2: Critical thinking in the workplace

Read each question carefully and answer by selecting the appropriate response.

1. Select the best definition of ‘critical thinking’.

Table Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. Critical thinking is a skill for analysing and evaluating information, arguments, and ideas logically and objectively |  |
| 1. Critical thinking is a technique for judging others and their work methods |  |
| 1. Critical thinking is a method of solving problems quickly |  |
| 1. Critical thinking is an attribute of people who think and solve issues rationally and reasonably |  |

1. Match the descriptions to the critical thinking technique.

Table Matching

| Description | Answer | Critical thinking technique |
| --- | --- | --- |
| Asking for information about a problem or issue to better understand the issue, gain perspective and challenge assumptions |  | 1. Analysing |
| Identifying the critical questions in an issue, analysing causes, developing alternative solutions, evaluating alternatives and implementing decisions |  | 1. Evaluating |
| Carefully examining ideas and information to systematically consider all aspects of a problem and the context of the problem |  | 1. Interpreting |
| Deciphering information to reach an understanding |  | 1. Problem solving |
| Making judgements about information, the validity of ideas or quality of work based on a set of criteria |  | 1. Questioning |

1. Identify **3** benefits of using critical thinking concepts and approaches in ICT.

Table Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. To avoid accountability for decision making |  |
| 1. To better understand current practices, products or services |  |
| 1. To investigate and evaluate potential improvements |  |
| 1. To eliminate the need for stakeholder involvement in decision making |  |
| 1. To reach and justify decisions for changes and improvements |  |
| 1. To speed up the decision-making process |  |

## Part 3: Emerging technology and practices

Read each question carefully and answer by selecting the appropriate response.

1. Read the organisational ICT functions carefully and indicate **word 1** or **word 2**.

**Word 1**: Technology

**Word 2**: Practice

Table Matching question

| Statement | Select the correct answer/s |
| --- | --- |
| Migrating data to the cloud |  |
| Conducting virtual meetings using MS Teams |  |
| Updating ICT policies and procedures |  |
| Using an online ticketing system for the help desk |  |
| Setting up ergonomic workspaces |  |
| Conducting mandatory cyber security training |  |

1. Select the definition of ‘emerging technology’.

Table Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. All technology related to Artificial Intelligence |  |
| 1. Technology that is currently developing, is new or novel, may create significant effects and may be available in the next 5 to 10 years |  |
| 1. Any technological solutions that will increase organisational productivity and support the development of new products and services |  |
| 1. All technology to have emerged from the large IT companies in Silicon Valley |  |

1. Indicate the correct order for each of the following steps in a technology implementation plan.

Table Ordering

| Steps/Process | Order |
| --- | --- |
| Conduct a gap analysis between the as-is and to-be state. |  |
| Implement the plan. |  |
| Write the plan with timelines for development and implementation, risk analysis, training requirements. |  |
| Develop goals and objectives. |  |
| Evaluate the plan success and areas to improve. |  |
| Acquire the resources required to meet the goal including hardware, software and personnel. |  |
| Monitor and report on progress. |  |

## Part 4: ICT professional skills

Read each question carefully and answer by selecting the appropriate response.

1. When resolving ICT problems, what are **3** client expectations?

Table Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. To be provided with the tools and equipment to complete maintenance |  |
| 1. To be provided with clear instructions on how to log ICT problems with the ICT help desk |  |
| 1. To be assured that logged request will include the problem description, steps taken and solution |  |
| 1. To understand the technical details of resolution options |  |
| 1. To have systems to provide feedback on the ICT service and the suitability of solutions |  |

1. Match the organisational department to the function.

Table Matching

| Function | Answer | Department |
| --- | --- | --- |
| Support hardware and software, network connections, and installations |  | 1. Service or help desk |
| Central point of contact for technical support |  | 1. ICT Systems Support Team |
| Sourcing, negotiating, contracting and acquiring of goods and services with vendors and suppliers to support operations |  | 1. ICT Security |
| Mitigate risks to safeguard the confidentiality, integrity and availability of information, communication technology assets and related environments |  | 1. Procurement |

## Part 5: Working in ICT support

Read each question carefully and answer by selecting the appropriate response.

1. Match the description of the ICT procedure to the work task.

Table Matching

| Description | Answer | Work task |
| --- | --- | --- |
| Detailed steps and instructions specifying how a maintenance procedure is performed, who performs it and when |  | 1. Prioritise client ICT problem |
| Practices such as updated firewall and security software, strict password policy and authentication |  | 1. Following third party support procedure |
| A Service Level Agreement that categorises the nature and urgency of problems |  | 1. Performing maintenance |
| A process for escalating problems to vendors as outlined in vendor support agreement |  | 1. Preparing and distributing maintenance reports |
| Running applications to generate automated summaries targeting specific maintenance data to the people responsible to make evidence-based decisions |  | 1. Securing an ICT workplace and its network |

1. Identify **3** environmental guidelines relevant to identifying and resolving ICT problems.

Table Multiple choice

| Answer choices | Select the correct answer/s |
| --- | --- |
| 1. Selection of methods to dispose of used components |  |
| 1. Preference for repair and maintenance ahead of replacement and disposal |  |
| 1. Personnel who approve equipment procurement policy |  |
| 1. Budgetary limits for equipment purchases |  |
| 1. Sustainability performance of desktops, laptops and monitors including percentage of reusable or recyclable components |  |
| 1. Fact sheets for ICT hardware maintenance procedures |  |

1. Indicate the correct order for each of the following steps in escalation to vendor support.

Table Ordering

| Steps/Process | Order |
| --- | --- |
| Estimate the vendor expected response time based on the Service Level Agreement and communicate this to the internal client |  |
| Identify the vendor technical support contact details |  |
| Obtain partner identification details |  |
| Raise a support ticket in the vendor service desk system |  |
| Raise a support ticket in the internal service desk system to track the request |  |
| Obtain specific details of the issue, software and hardware information, and diagnostic tests |  |

1. Match the description to the type of service or help desk.

Table Matching

| Description | Answer | Description |
| --- | --- | --- |
| Single service desk with team members spread across geographical or structural locations with the option of working from home, offshoring, or outsourcing |  | 1. Local service desk |
| Service desk co-located within or physically close to the users it serves |  | 1. Centralised service desk |
| Combination of two or more geographically dispersed service desks to provide round-the-clock support to users |  | 1. Virtual service desk |
| Structure obtained by merging multiple service desks into a single entity |  | 1. 24-hour service desk |

1. Indicate the correct order for each of the following steps in an ICT service desk procedure.

Table Ordering

| Steps/Process | Order |
| --- | --- |
| The incident is categorised for forwarding to the appropriate person or section |  |
| Incident is assigned to the most appropriate technician with the ticket priority |  |
| The incident is resolved; the end user or client is notified; and end user validates the resolution |  |
| Incident is logged using a self-service portal that collects all the relevant information at the time of ticket creation |  |
| Incident is escalated where required in accordance with Service Level Agreement |  |
| The incident status is updated and closed with data used for post-incident analysis and feedback for continuous improvement |  |
| Incident is prioritised by the appropriate person or section based on impact analysis |  |
| Task is created and incident management system tracks progress and deadlines |  |

1. Match the description to the function of operating systems.

Table Matching

| Description | Answer | Operating system function |
| --- | --- | --- |
| Operating systems control the printing functions for a computer where commands are sent to a printing queue and processed individually |  | 1. File management |
| Providing a graphical user interface (GUI) that reacts to a user’s input |  | 1. Memory management |
| Managing programs at the time of execution, or processes, using process manager to keep track of the status of each process |  | 1. Process management |
| Managing what is stored in random access memory (RAM) to allow multiple tasks to be completed |  | 1. Interface |
| Manipulating, storing, retrieval and saving data on mass storage devices |  | 1. Print management |

## External resources – Links and URLs

Long URLs and permalinks are provided for access to content when the assessment is not used digitally, for example, not clickable.

Table Long URLs

| Resource Name | Long URL |
| --- | --- |
| The Learning Bank | https://share.tafensw.edu.au/share/home.do |

This page is not required for online assessment submissions.

### Student assessment declaration

This assessment is my original work and has not been:

* copied from any source without proper referencing
* written for me by any other person except where such collaboration has been approved by a teacher or assessor.

Student signature and date

### Reasonable adjustment

Reasonable adjustment was in place for this assessment event.

If so, please provide details of any reasonable adjustment strategies that were implemented:

[Insert reasonable adjustment strategies]

### Assessment outcome

Satisfactory  Unsatisfactory

Comments

[Insert comments]

Assessor name, signature and date

Student acknowledgement of assessment outcome

[Would you like to make any comments about this assessment?]

Student name, signature and date