Manage the operation of digital systems

Overview

This standard is about selecting, safely setting up and using digital system components, storage media and peripheral devices and making sure that they are working properly, such as by testing, fault finding and solving problems.

It involves specifying, networking, configuring and testing digital systems prior to use. It also involves establishing procedures for troubleshooting and system maintenance to ensure continued operation.

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Performance criteria

You must be able to:

1. link or network multiple devices to facilitate effective sharing of storage and peripheral devices
2. install, remove and upgrade application software as appropriate to meet organisational requirement
3. select and run suitable tests to make sure systems and communication services are working as required
4. plan the routine and non-routine maintenance of hardware and software in line with organisational requirement
5. monitor the implementation of maintenance plans making appropriate updates to them as necessary
6. monitor and record IT system problems to enable effective response
7. use appropriate fault-finding procedures to routinely monitor hardware performance
8. help others to select and use appropriate resources to respond to IT system problems
9. locate and use available sources to determine and take appropriate action in the event of non-routine IT problems
10. carry out appropriate contingency planning to recover from system failure and data loss
11. develop appropriate organisational guidelines for the use of digital systems

Knowledge and understanding

You need to know and understand:

1. regulations, organisational policies and procedures governing the performance of
2. digital systems including IT health and safety and good practice, and how to apply them
3. reasons for choosing different system components and how to avoid any compatibility issues between hardware and software
4. the importance of regular and planned system maintenance
5. protocols that control mobile transmission
6. different tests for systems and communications services and how to carry these out
7. types of non-routine IT problems that may occur and how to respond to them
8. causes of problems with digital systems and how to reduce the occurrence of similar problems in the future
9. benefits and risks of using disk- or cloud-based backup locations
10. different system administrative tools and procedures and how to use them
11. how to maintain security on remove access sessions

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