T Level Technical Qualification in Digital Support Services

Occupational specialism assessment (OSA)

Network Cabling

All assignments

Provider guide

T Level Technical Qualification in Digital Support Services
Occupational specialism assessment (OSA)

Network Cabling

Provider guide

All assignments

Contents

Controls for this assessment

Assessment delivery

The network cabling occupational specialism consists of 3 separate assignments.

The assignments are set by NCFE and administered by you, the provider.

The assignments will be released to providers for planning and preparation in advance of the windows:

- assignment 1 will be delivered on set dates and times across all providers

- assignment 2 will be delivered within a set 2-week window specified by NCFE after the set dates for assignment 1

- assignment 3 will be delivered on set dates and times across all providers after the window set for assignment 2

Specific information for each assignment can be found below.

Students must complete the assignments independently and under supervised conditions, as per the specific guidance for each assignment provided below.

Students are required to complete and sign an external assessment cover sheet (EACS) – declaration of authenticity form for each assignment to confirm that the work is their/the student's own. A single declaration form is sufficient for all tasks within one assignment. The declaration forms can be found on the NCFE website. This is to ensure authenticity and to prevent potential malpractice and maladministration. Students must be made aware of the importance of this declaration and the impact this could have on their overall grade if the evidence was found not to be the student's own work.

At the end of each supervised session, the tutor must collect all evidence and any other materials before students leave the room, to ensure that no student takes any external assessment material or assessment evidence out of the room. This also includes sufficient monitoring and checks to ensure that students have not made materials available to themselves or anyone else electronically via the intranet or internet.

External assessment materials should be securely stored between supervised sessions. Students must not have access to this area between the supervised sessions, including electronic files and physical hardware.

Assignment 1

Controls

The tasks for this assignment will be delivered over 3 days, on the dates and times specified by NCFE.

Students have 13 hours to complete all tasks within this assignment.

Task 1 = 8 hours (this task will be completed in 4 sessions over 2 days).

Task 2 = 5 hours (this will be provided after completion of task 1 and be completed in 2 sessions over 1 day).

Students must work independently and under supervised conditions.

Students should be given a separate user account that is locked at the end of each assessment session.

Providers must ensure that students have access to a printed copy of their network design proposal from task 1 when they begin task 2.

Internet access is **not** allowed.

Evidence should be returned to NCFE by the date specified and will be marked by NCFE.

Resources

Task 1

Students will need to be provided with:

- word processing software

Task 2

Students will need to be provided with:

- word processing software

- Cisco Packet Tracer – providers should arrange for students to register with Cisco Network Academy for full access to the latest version of the software (a locally installed version must be used - the online version is not suitable because internet access is **not** allowed)

Assignment 2

Controls

The assignment will be delivered within a set 2-week assessment window, specified by NCFE.

Students have 12 hours 30 minutes to complete all tasks within this assignment.

It is recommended that students allocate their time to the tasks as follows:

Task 1 = 9 hours

Task 2 = 3 hours 30 minutes

However, students may work on the tasks at any point during the 6 sessions.

Students must complete the tasks in 6 sessions over 3 consecutive days. Providers must schedule sufficient time within the 2-week window for all students to be able to complete all tasks by the end of the window.

Students must work independently and under supervised conditions.

Students should be given a separate user account that is locked at the end of each assessment session.

At the end of each day, the room must be secured, and students must **not** have access to their cabling installation.

Internet access is **not** allowed.

Students must take all photographs on a digital camera provided by the provider.

Students are **not** allowed to use their mobile phones.

Evidence should be returned to NCFE by the date specified and will be marked by NCFE.

Resources

Each student will need to be provided with their own set of the following resources:

- word processing software

- test plan template supplied by NCFE

- digital camera

- ethernet cable

- trunking

- appropriate screwdriver

- cable tools – crimper/kroning tool

- RJ45 wall sockets

- patch panel

- network switch

- wireless access point/router

- labels/labelling machine

- cable tester

- PPE (goggles, gloves)

- appropriate end-user devices for testing

Assignment 3

Controls

The tasks for this assignment will be delivered over 3 days, on the dates and times specified by NCFE.

Students have 5 hours 30 minutes to complete all tasks within this assignment.

Task 1 = 1 hour 30 minutes

- providers may schedule multiple sittings for task 1, but **all** students must complete the task on the date specified by NCFE

- where providers schedule multiple sittings for task 1, they must ensure that students remain under supervised conditions whilst they are waiting to complete the task – this is to ensure that they cannot communicate with other students who have already completed the task

Task 2 = 2 hours (this will be provided after completion of task 1 and be completed in 1 session on day 2)

Task 3 = 2 hours (this will be provided after completion of task 2 and be completed in 1 session on day 3)

Students must work independently and under supervised conditions.

Students should be given a separate user account that is locked at the end of each assessment session.

Internet access is **not** allowed.

Students must take all photographs on a digital camera provided by the provider.

Students are **not** allowed to use their mobile phones.

Students are to take photographs of the corrected cables which clearly show the connections of the internal wiring to the RJ45 and the coloured outer cable.

Evidence should be returned to NCFE by the date specified and will be marked by NCFE.
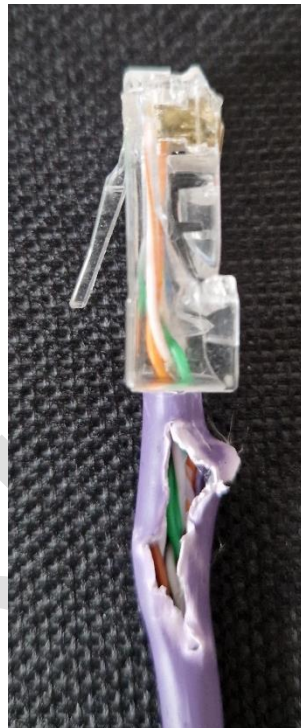
Resources

Task 1

Students will need to be provided with:

- the test plan template supplied by NCFE

- a hand-held cable/network tester capable of analysing faults and generating an informative report

- a network impairment simulator/network delay simulator

- a digital camera

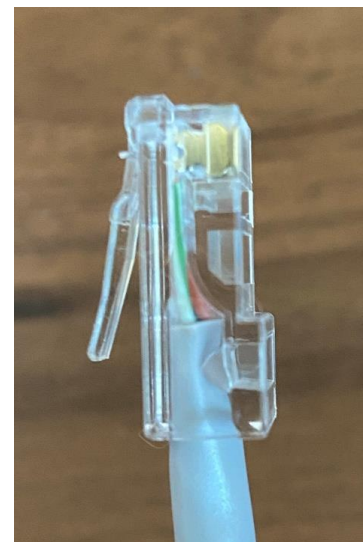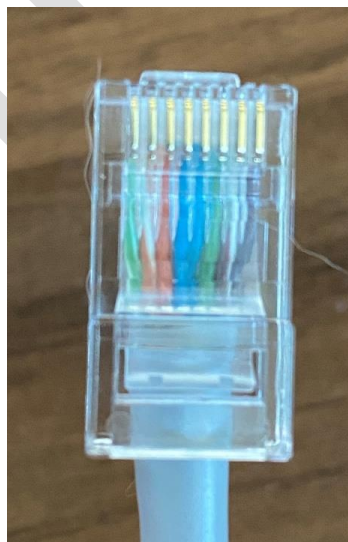- a set of faulty cables (see below)

- a supply of RJ45 connectors

Cable 1: Cable was damaged when it was run throughout the trunking, a new 10m cable needs to be created.

Produced on grey cable and labelled '**Cable 1**'

Cable 2: The cables have been clamped short of the end pins.

Produced on blue cable and labelled '**Cable 2**'

Cable 3: Split along length of cable (approximately 10cm from end)

Produced on green cable and labelled '**Cable 3**'

Cable 4: The RJ45 connector has cracked & melted at the top (with pliers to simulate cracking due to overheating)

Produced on yellow cable and labelled '**Cable 4**'

Cable 5: Cable was terminated incorrectly which allows the twisted pair cable to be removed from the RJ45 connector Produced on purple cable and labelled '**Cable 5**'	

Task 2

Students will need to be provided with:

- word processing software

- Cisco Packet Tracer – providers should arrange for students to register with Cisco Network Academy for full access to the latest version of the software (a locally installed version must be used – the online version is not suitable because internet access is **not** allowed)

- the Cisco Packet Tracer file supplied by NCFE

- the test plan template supplied by NCFE

Task 3

Students will need to be provided with:

- word processing software

- the risk assessment template supplied by NCFE

Document information

Owner: Head of Assessment Design

Change History Record

Version	Description of change	Approval	Date of Issue
v1.0	Additional sample material		01 September 2023
v1.1	Sample added as watermark	November 2023	16 November 2023