Test Project

Infoemation Network Cabling

Module 5

Troubleshooting for copper and fibre cabling

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Contents

Introduction

This Test Project consists of the following documents/files, which are provided as digital files:

- Maintenance report: Doc_M5.pdf

Description of project and tasks

This module has two tasks, namely, Module 5_Copper system and Module 5_Optical system. Each Task is to detect failures which occurred in the systems you installed in Module 1 and Module 2, and then, do recovery work. Each task

Failures occurred due to all or part of the followings:

- There was something wrong with the design specification of each Module
- Expert made some change(s) to the system
- Materials and/or equipment were added, while they were not in the design specification of each Module

Instructions to the Competitor

The competition time is 120 minutes. It breaks down to 60 minutes for Module 5_Optical system and 60 minutes for Module 5_Copper system. Each task takes place in different timeframes separately.

Troubleshooting of Copper system

1. An instruction document will be distributed, which describes the locations in the target system.
2. There are at least two failures. Identify all the failures using a LAN tester.
3. Upload the measurement results obtained by the LAN tester in a **.doc** format
4. Describe all the contents designated in the report (for example, causes for all the detected failures) and upload the completed document. For free writing, you can use your mother language.
5. Eliminate all the failures by any method you freely choose
6. After failure recovery, measure the target locations again with the LAN tester, and upload to the system (https://skill02worldskills.com/) the measurement results in a **.doc** format

Troubleshooting of Fiber system

1. An instruction document will be distributed, which describes the locations in the target system.
2. Attach the provided optic panel to the indicated position.
3. Fusion splice the free core wire of the optical fiber introduced to the optical panel and the designated optical fiber in the optical panel (12C). Without completing this, the next step of the work cannot be done.
4. There are at least 3 failures. Identify all the failures using a LAN tester.
5. Upload the measurement results obtained by the LAN tester in a **.doc** format.
6. Describe all the contents designated in the report (for example, causes for all the detected failures) and upload to the system (https://skill02worldskills.com/) the completed document. For free writing, you can use your mother language.
7. Recover all the failures. Among the identified failures, failure(s) recoverable by a Splice on Connector shall be worked on with this connector-using method. The splicer used at the time shall be dangled around the neck when used.
8. After failure recovery, measure the target locations again with the LAN tester, and upload the measurement results in a **.doc** format.

General Instructions

1. When identifying and/or recovering failures, any other part shall not be affected.
2. Cables which became unnecessary need to be removed, unless removal gives negative impact to the adjacent cables
3. When repairing is impossible, necessary measure(s) shall be taken, such as marking

Equipment, machinery, installations, and materials required

Materials and equipment not listed in the infrastructure list are not used in this module.

Marking Scheme

The important point for this module it to check the cabling and cabling materials of the targeted links and to repair them correctly.

The total mark of Module 5 is “X”.

Other

Competitors must comply with the matters prescribed in the competition guideline 2022SE.