



# QUIZ-MTM Standards Induction for the Signal *Test* Roles

**Version 1.1, 2018**

**Applicant Name:** \_\_\_\_\_

**RSW number** \_\_\_\_\_

It is a requirement of the MTM Signals, CS&C, and Project Competency Management system for all RSW to be familiar with, and understand where to locate technical standards, signalling standard documents and plans, technical information, competencies and MTM latest updates.

A acceptance or pass mark of **80% or greater** is required for this “Question and Answer” Quiz (require minimum of **16 or more correct** answers)

These questions are not to be regarded as proof of competency with MTM. (This is reviewed and assessed as a separate exercise with the RSW).

**For your information.**

MTM standards, and other MTM technical information is found at the website, <https://documentportal.metrotrains.com.au/Pages/default.aspx>

Note. In response to PTV’s Industry Announcement regarding the VRIOGS Retirement from 30th June 2018, MTM has rebadged selected VRIOGS to ensure a smooth, transparent transition from the retirement of VRIOGS to a full suite of MTM Engineering Standards/Specifications applicable to Melbourne Metropolitan Rail Network. The technical contents of the rebadged VRIOGS are still relevant to Melbourne Metropolitan Rail Network.

Always check the latest L1-CHE-GDL-005 Engineering Standards Listing for Engineering Standards applicable to MTM network. It is available on Chief Engineer’s Policies and Procedures page on the Depot or the MTM’s Document Portal. If you find an MTM document referencing a VRIOGS, please refer to the latest L1-CHE-GDL-005 Engineering Standards Listing for a translation, which is available on Chief Engineer’s Policies and Procedures page on the Depot or the MTM’s Document Portal.

Standard drawings, VRIOG standards and other plans are found at the link (registration with DMS is required to access this website),

<https://dms.ptv.vic.gov.au/Dms/Account/LogIn?ReturnUrl=%2fDms%2f>

The Metro Trains Melbourne Academy, competency and RSW site containing all competency information and MTM competency documents such as Statement of competency forms, Checklists, competency matrix, Competency Manuals, Signal Standards induction (Quiz) and update bulletins are found at the website, <http://www.metrotrains.com.au/rail-safety-worker-competence>

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# Questions

## Question – 1

In the MTM L1-CHE-SPE-297 standard, name the clause and specified Category in relation to Environmental Factors and temperature.

1. Clause 4.2 – Category B4
2. Clause 5.1
3. Clause 5.5
4. Clause 4.4 – Category B4

## Question – 2

In the MTM L1-CHE-MAN-003 Signals Rail Safety Worker Competence name the clause that relates to Subject Matter Experts (SME) and the document that Metro issue to all SME's.

1. Clause 12.4 – Metro letter of authorisation
2. Clause 7.4 – Metro Statement of Competency
3. Clause 14.1 – Metro Work Experience Record
4. Clause 6.7.1 – Metro Checklist

## Question – 3

In the MTM document L1-NPD-PRO-002 Works Readiness Procedure what is the correct business rule that relates to the issued for construction (IFC) design for all signalling works, and the “T” number of weeks that IFC design must be approved before the deadline?

1. Business rule #1 and 5 weeks
2. Business rule #2 and 3 weeks
3. Business rule #3 and 4 weeks
4. Business rule #4 and 8 weeks

## Question – 4

In the MTM document L1-CHE-PLA-004 MSPM 030600-01 Signal Cable Management Strategy, what section can the cable insulation values be found and also the values for existing cable core to core to earth insulation?

1. Section 8.3 (c)
2. Section 8.4 (2a)
3. Section 10 table 1
4. Section 10 table 2

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**Question – 5**

**In what MTM document can the requirements for Removal of redundant signalling wiring and equipment be found?**

1. MTM L1-CHE-SPE-069
2. MTM L1-CHE-SPE-073
3. MTM L1-CHE-SPE-043
4. MTM L1-CHE-STD-070

**Question – 6**

**In which MTM document can the list of the MTM Chief Engineers Standards be found?**

1. L1-CHE-GDL-005
2. L1-CHE-GDL-009
3. MTM L1-CHE-SPE-069 (VRIOGS 012.1)
4. L1-NPD-PRO-002

**Question – 7**

**In which two MTM documents can the signalling principles and configuration requirements, and the signal sighting standards be found?**

1. L1-CHE-STD-036 and L1-CHE-STD-073
2. L1-CHE-STD-036 and L1-CHE-STD-004
3. L1-CHE-STD-072 and L1-CHE-STD-064
4. L1-CHE-STD-004 and L1-CHE-STD-070

**Question – 8**

**In which MTM standard can the Requirements for MTM construction of cable route and signalling civil works be located?**

1. L1-CHE-STD-043
2. L1-CHE-STD-036
3. L1-CHE-GDL-017
4. L1-NPD-PRO-002

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**Question – 9**

**In the MTM document L1-CHE-STD-016 MEST 000002-05 Track Bonding for Signalling and Traction Return Current, which section refers to signalling bonding?**

1. Section 8.1
2. Section 9.2
3. Section 16
4. Section 18

**Question – 10**

**In the MTM document L1-CHE-SPE-154 3.3 Kv Essential Services Distribution System, where can the signal power supply section be located?**

1. Section 7.6
2. Section 10.2
3. Section 11.1
4. Section 13

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## **Testing Questions**

### **Question – 11**

**In which two MTM document can the requirements for roles and responsibilities be found related to the testing and commissioning of signalling and train control systems?**

1. L2-CHE-PLA-002 and L1-CHE-STD-073
2. L2-CHE-PLA-002 and L1-CHE-STD-071
3. L1-CHE-STD-065 and L1-CHE-STD-068
4. L1-CHE-STD-069 and L1-CHE-SPE-305

### **Question – 12**

**In MTM L1-CHE-STD-073 –Testing and Commissioning of Safety Related Signalling Systems, in which section of the document refers to tests of all type of apparatus?**

1. Appendix A
2. Section 5.2
3. Section 9.5
4. Appendix C

### **Question – 13**

**In MTM L1-CHE-STD-073 - Testing and Commissioning of Safety Related Signalling Systems, what other two tests are required apart from a continuity test to revel any anomalies?**

1. Megger test and a Null count
2. Megger test and a Bell test
3. Wire Count and a Bell test
4. Wire Count and a Null count

### **Question – 14**

**In MTM L1-CHE-STD-073 - Testing and Commissioning of Safety Related Signalling Systems which Australian Standard relates to Testing and Commissioning documentation?**

1. AS 4292.3
2. AS 4294.5
3. AS 4292.4
4. AS 4292.1

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### Question – 15

In MTM L1-CHE-STD-073 - Testing and Commissioning of Safety Related Signalling Systems which Australian Standard relates to Operational systems?

1. AS 4292.3
2. AS 4294.5
3. AS 4292.5
4. AS 4292.1

### Question – 16

Which MTM document is used for planning the Testing and Commissioning of Signalling, Train Control and associated rail systems and which section relates to control tables and principle tests?

1. L1-CHE-STD-071 and section 5.9
2. L1-CHE-STD-068 and section 11.6
3. L1-CHE-SPE-305 and section 2.3
4. L2-CHE-PLA-002 and section 8.4

### Question – 17

In MTM L1-CHE-STD-073 - Testing and Commissioning of Safety Related Signalling Systems in what section can the commissioning tests for points be found, and how many types of tests are listed ?

1. Section C.6.3 and 4 types of tests
2. Section C.5.3 and 3 types of tests
3. Section C.3.7 and 2 types of tests
4. Section C.7.2 and 5 types of tests

### Question – 18

In MTM L1-CHE-STD-073 - Testing and Commissioning of Safety Related Signalling Systems in what section can the commissioning tests for axle counters be found, and how many types of tests are listed?

1. Section C.9.2 and 3 types of tests
2. Section C.2.5 and 5 types of tests
3. Section C.5.3 and 3 types of tests
4. Section C.7.3 and 7 types of tests

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**Question – 19**

**In MTM L1-CHE-STD-073 - Testing and Commissioning of Safety Related Signalling Systems in what section can test straps be found, what colour are they and what minimum length?**

1. Section A5.2, blue in colour and 1 metre long
2. Section A3.3, pink in colour and 4 metres long
3. Section A7.3, purple in colour and over 4 metres long
4. Section A6.6, coloured yellow and minimum 2 metres long

**Question – 20**

**In MTM L1-CHE-STD-073 - Testing and Commissioning of Safety Related Signalling Systems in what section can the use of false feeds be found, and when is the final test performed to ensure removals of all test straps?**

1. Section A6.1, and can be removed at any time
2. Section A6.5, and shall be removed prior to commissioning
3. Section A6.7 and shall be removed prior to commissioning
4. Section A5.2 and shall be removed during the commissioning

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Score \_\_\_\_\_ / 20

Note-requires 80% correct answers to pass (16 or more correct answers)

**Assessment Result**

Circle the assessment outcome

Passed

Not Passed

**Comments**

**MTM Approved Signals Assessor to complete as assessor of the Standards Induction**

RSW number \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**RSW Applicant to complete as acceptance of Standards induction assessment**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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