QUIZ-MTM Standards Induction for the Signal *Design* 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

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 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. Section8.4 (2a)
3. Section 10 table 1
4. Section 10 table 2

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
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

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

Design Questions

Question – 11

L1-CHE-STD-069 – Standard for Signalling Design Documentation.

The Designer shall carry out design verification and validation to which AS specification?

1. AS 4292.1
2. AS 4292.4
3. AS 4992.3
4. AS 3000.3

Question – 12

In which MTM document can the axle counter reset procedure be found?

1. L1-CHE-GDL-016
2. L1-CHE-SPE-294
3. L1-CHE-STD-073
4. L1-CHE-INS-024

Question – 13

In MTM L1-CHE-POL-001 Engineering drawings management policy (IFC/as- built) what clause defines the design phase and how many days are allowed for review of comments

1. Clause 5, and 15 days
2. Clause 9.3, and 21 days
3. Clause 8.1, and 10 days
4. Clause 1, and 8 days

Question – 14

In what MTM standard is the management for overlapping signal design found, and what section relates to the process?

1. L1-CHE-STD-074, section 5
2. L1-CHE-PRO-007 and section 8
3. L1-CHE-STD-043, section 11
4. L1-CHE-SPE-040, section 3

Question – 15

In which MTM document can the requirements for correlation of signalling records be found, and who is responsible to capture this process in scope of works?

1. L1-CHE-STD-069, and project engineer
2. L1-CHE-STD-004, and signal construction manager
3. L1-NAM-INS-020, projects and signal design managers
4. L1-CHE-STD-065, and all senior managers

Question – 16

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 – 17

In MTM L1-CHE-STD-036 Signalling Principles and configuration requirements standard, in what section of the document can reference be found to signal headways and what time is allowed for equipment delay?

1. Section 4.1.3, and 3 seconds
2. Section 4.2 and 5 seconds
3. Section 6, and 2 seconds
4. Section 7.6, and 5 seconds

Question – 18

In MTM L1-CHE-STD-064 – Victorian Signal Principles in what section can the track clearance point be found, and for broad gauge track what is the correct minimum track clearance?

1. Section 12.2, and 3 metres
2. Section 6.9, and 5 metres
3. Section 4.4.1, and 4 metres
4. Section 9.2.2, and 6 metres

Question – 19

In which MTM document can the requirements for communication links that are used for signalling purposes found, and what is the availability performance level defined and required?

1. L1-CHE-STD069, section 7, 95.98% available
2. L1-SIG-STD-001 section 9, and 99.97% available
3. L1-CHE-STD-036, section 6, 99.97% available
4. L1-SIG-STD-001, section6, and 99.999% available

Question – 20

In MTM L1-CHE-STD-036 Signalling Principles and configuration, requirements standard, in what section of the document can reference be found to overlap provision and what is the type of overlap required for normal and medium train speeds?

1. Section 7.3.1, and reduced overlap
2. Section 7.5, and 200 metres overlap
3. Section 7.2, and 300 metres overlap
4. Section 7.2.1, and fully braked overlap

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: _____