



## **QUALIFICATION FILE**

### **Supervisor – Operations (Metro Rail)**

(Electives: Station Controller / Train Operator)

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship

☒ Upskilling ☐ Dual/Flexi Qualification ☐ For ToT ☐ For ToA

☒ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☐ OEM

NCrF/NSQF Level: 4.5

Submitted By:

DMRC Academy

East approach Road, Delhi Metro Train Depot

Shastri Park, Delhi-110053

## Table of Contents

|                                                            |    |
|------------------------------------------------------------|----|
| Section 1: Basic Details .....                             | 3  |
| Section 2: Module Summary .....                            | 5  |
| NOS/s of Qualifications.....                               | 5  |
| Mandatory NOS/s: .....                                     | 5  |
| Elective NOS 1: Station Controller .....                   | 6  |
| Elective NOS 2: Train Operator .....                       | 6  |
| Assessment - Minimum Qualifying Percentage.....            | 7  |
| Section 3: Training Related.....                           | 7  |
| Section 4: Assessment Related.....                         | 8  |
| Section 5: Evidence of the need for the Qualification..... | 8  |
| Section 6: Annexure & Supporting Documents Check List..... | 9  |
| Annexure 1: Evidence of Level.....                         | 9  |
| Annexure 2: Tools and Equipment (Lab Set-Up) .....         | 16 |
| Annexure 3: Industry Validations Summary .....             | 18 |
| Annexure 4: Training & Employment Details .....            | 18 |
| Annexure 5: Blended Learning .....                         | 19 |
| Annexure 6: Detailed Assessment Criteria .....             | 19 |
| Annexure 7: Assessment Strategy .....                      | 31 |
| Annexure 8: Acronym and Glossary .....                     | 33 |

## Section 1: Basic Details

| 1.     | Qualification Name                                                                                                                                                             | Supervisor - Operations (Metro Rail)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                 |        |                                                                    |                                                           |    |                                           |  |    |            |  |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------|--------------------------------------------------------------------|-----------------------------------------------------------|----|-------------------------------------------|--|----|------------|--|
| 2.     | Sector/s                                                                                                                                                                       | Logistics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                 |        |                                                                    |                                                           |    |                                           |  |    |            |  |
| 3.     | Type of Qualification: <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options<br><input type="checkbox"/> OEM | NQR Code & version of existing/previous qualification: (change to previous, once approved)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Qualification Name of existing/previous version: NA             |        |                                                                    |                                                           |    |                                           |  |    |            |  |
| 4.     | a. OEM Name<br>b. Qualification Name<br>(Wherever applicable)                                                                                                                  | NA<br>Supervisor - Operations (Metro Rail)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |        |                                                                    |                                                           |    |                                           |  |    |            |  |
| 5.     | National Qualification Register (NQR) Code &Version<br>(Will be issued after NSQC approval)                                                                                    | QG-4.5-TW-04145-2025-V1-DMRCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6. NCrf/NSQF Level: 4.5                                         |        |                                                                    |                                                           |    |                                           |  |    |            |  |
| 7.     | Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)                                    | Certificate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                 |        |                                                                    |                                                           |    |                                           |  |    |            |  |
| 8.     | Brief Description of the Qualification                                                                                                                                         | A Supervisor - Operations (Metro Rail) oversees metro railway operations, ensuring system efficiency, safety compliance, and smooth service delivery. The role includes managing signaling, telecom, and fare collection systems, supervising station operations, and handling rolling stock and train operations.                                                                                                                                                                                                                                                                                                                                                            |                                                                 |        |                                                                    |                                                           |    |                                           |  |    |            |  |
| 9.     | Eligibility Criteria for Entry for Student/Trainee/Learner/Employee                                                                                                            | <p>a. Entry Qualification &amp; Relevant Experience:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>3 years Engineering Diploma* / equivalent</td> <td></td> </tr> <tr> <td>2.</td> <td>Graduate**</td> <td></td> </tr> </tbody> </table> <p>*Diploma in Electrical/Electronic or equivalent<br/> **B Sc. Hons in (Physics/ Chemistry/ Mathematics) OR B Sc. (Physics/ Chemistry/ Mathematics) from a Govt. recognized University/Institute</p> <p>b. Age: Not Applicable</p> |                                                                 | S. No. | Academic/Skill Qualification (with Specialization - if applicable) | Required Experience (with Specialization - if applicable) | 1. | 3 years Engineering Diploma* / equivalent |  | 2. | Graduate** |  |
| S. No. | Academic/Skill Qualification (with Specialization - if applicable)                                                                                                             | Required Experience (with Specialization - if applicable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                 |        |                                                                    |                                                           |    |                                           |  |    |            |  |
| 1.     | 3 years Engineering Diploma* / equivalent                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                 |        |                                                                    |                                                           |    |                                           |  |    |            |  |
| 2.     | Graduate**                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                 |        |                                                                    |                                                           |    |                                           |  |    |            |  |
| 10.    | Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))                                                                        | Min: 11<br>Max: 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 11. Common Cost Norm Category (I/II/III) (wherever applicable): |        |                                                                    |                                                           |    |                                           |  |    |            |  |

| 12.                     | <b>Any Licensing requirements for Undertaking Training on This Qualification</b> (wherever applicable)                                                                     | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                         |                         |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------|-----------------------|-------------------------|---------------|---------------------|-----|-----|----|---|-----|--------|--|--|--|--|--|-------------------------|----------------|-------------------|-----------------------|-------------------------|---------------|---------------------|-----|-----|----|---|-----|--------|--|--|--|--|--|
| 13.                     | <b>Training Duration by Modes of Training Delivery</b> (Specify <b>Total Duration</b> as per selected training delivery modes and as per requirement of the qualification) | <p><b>Minimum:</b><br/> <input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended</p> <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>147</td> <td>123</td> <td>30</td> <td>-</td> <td>300</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>(Refer Blended Learning Annexure for details)</p> <p><b>Maximum:</b><br/> <input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended</p> <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>177</td> <td>303</td> <td>30</td> <td>-</td> <td>510</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>(Refer Blended Learning Annexure for details)</p> | Training Delivery Modes | Theory (Hours)          | Practical (Hours) | OJT Mandatory (Hours) | OJT Recommended (Hours) | Total (Hours) | Classroom (offline) | 147 | 123 | 30 | - | 300 | Online |  |  |  |  |  | Training Delivery Modes | Theory (Hours) | Practical (Hours) | OJT Mandatory (Hours) | OJT Recommended (Hours) | Total (Hours) | Classroom (offline) | 177 | 303 | 30 | - | 510 | Online |  |  |  |  |  |
| Training Delivery Modes | Theory (Hours)                                                                                                                                                             | Practical (Hours)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | OJT Mandatory (Hours)   | OJT Recommended (Hours) | Total (Hours)     |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| Classroom (offline)     | 147                                                                                                                                                                        | 123                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30                      | -                       | 300               |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| Online                  |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                         |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| Training Delivery Modes | Theory (Hours)                                                                                                                                                             | Practical (Hours)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | OJT Mandatory (Hours)   | OJT Recommended (Hours) | Total (Hours)     |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| Classroom (offline)     | 177                                                                                                                                                                        | 303                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30                      | -                       | 510               |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| Online                  |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                         |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| 14.                     | <b>Aligned to NCO/ISCO Code/s</b> (if no code is available mention the same)                                                                                               | NCO-2015/1324.1300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                         |                         |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| 15.                     | <b>Progression path after attaining the qualification</b> (Please show Professional and Academic progression)                                                              | <div style="display: flex; align-items: center; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px;">Supervisor – Operations (MR) (L4.5)</div> <div style="font-size: 24px;">→</div> <div style="border: 1px solid black; padding: 5px;">Engineer – Operations (Metro Rail) (L 5.5)</div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                         |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| 16.                     | <b>Other Indian languages in which the Qualification &amp; Model Curriculum are being submitted</b>                                                                        | Hindi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                         |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| 17.                     | <b>Is similar Qualification(s) available on NQR-if yes, justification for this qualification</b>                                                                           | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br><b>URLs of similar Qualifications:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                         |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |
| 18.                     | <b>Is the Job Role Amenable to Persons with Disability</b>                                                                                                                 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br><b>If “Yes”, specify applicable type of Disability:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                         |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |                         |                |                   |                       |                         |               |                     |     |     |    |   |     |        |  |  |  |  |  |

|     |                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                         |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 19. | <b>How Participation of Women will be Encouraged</b>                                                                                                     | Encouraging the participation of women for the role of Supervisor - Operations in Metro Railway can be achieved through various strategies aimed at promoting diversity, inclusivity, and gender equality. Training and skill development programs specifically tailored can be offered to female candidates interested in pursuing careers in these roles.<br>By ensuring that the workplace culture within the metro railway system is safe, respectful, and inclusive, free from harassment or discrimination. |                                         |
| 20. | <b>Are Greening/ Environment Sustainability Aspects Covered</b> <i>(Specify the NOS/Module which covers it)</i>                                          | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                         |
| 21. | <b>Is Qualification Suitable to be Offered in Schools/Colleges</b>                                                                                       | Schools <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Colleges <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                       |                                         |
| 22. | <b>Name and Contact Details of Submitting / Awarding Body SPOC</b><br><i>(In case of CS or MS, provide details of both Lead AB &amp; Supporting ABs)</i> | <b>Name:</b> Chandra Kishor Prasad<br><b>Email:</b> ckprasad@dmrc.org <b>Contact No.:</b> 99586 90650<br><b>Website:</b> <a href="https://dmra.delhimetrorail.com/">https://dmra.delhimetrorail.com/</a>                                                                                                                                                                                                                                                                                                          |                                         |
| 23. | <b>Final Approval Date by NSQC:</b> 08-05-2025                                                                                                           | 24. <b>Validity Duration:</b> 3 Years post NSQC Approval                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 25. <b>Next Review Date:</b> 08-05-2028 |

## Section 2: Module Summary

### NOS/s of Qualifications

*(In exceptional cases these could be described as components)*

### Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

**Th.**-Theory **Pr.**-Practical **OJT**-On the Job Training **Man.**-Mandatory **Rec.**-Recommended **Proj.**-Project

| S. No | NOS/Module Name                                                          | NOS/Module Code & Version <i>(if applicable)</i> | Core/ Non-Core | NCrF/NS QF Level | Credits as per NCrF | Training Duration (Hours) |     |          |          |       | Assessment Marks |     |       |      |       |                                      |
|-------|--------------------------------------------------------------------------|--------------------------------------------------|----------------|------------------|---------------------|---------------------------|-----|----------|----------|-------|------------------|-----|-------|------|-------|--------------------------------------|
|       |                                                                          |                                                  |                |                  |                     | Th.                       | Pr. | OJT-Man. | OJT-Rec. | Total | Th.              | Pr. | Proj. | Viva | Total | Weightage (%) <i>(if applicable)</i> |
| 1.    | Implement Metro Operations Training and Safety Procedures                | DMR/LSC/N9 901, v1.0                             | Core           | 4.5              | 3                   | 60                        | 30  | 00       | -        | 90    | 20               | 20  | -     | 10   | 50    | 10                                   |
| 2.    | Supervise the Operations of Signalling Systems and Platform Screen Doors | DMR/LSC/N0 601, v1.0                             | Core           | 4.5              | 1                   | 10                        | 20  | -        | -        | 30    | 20               | 20  | -     | 10   | 50    | 20                                   |

| S. No                                    | NOS/Module Name                                               | NOS/Module Code & Version (if applicable) | Core/ Non-Core | NCrF/NS QF Level | Credits as per NCrF | Training Duration (Hours) |           |          |          |            | Assessment Marks |            |       |           |            |                               |
|------------------------------------------|---------------------------------------------------------------|-------------------------------------------|----------------|------------------|---------------------|---------------------------|-----------|----------|----------|------------|------------------|------------|-------|-----------|------------|-------------------------------|
|                                          |                                                               |                                           |                |                  |                     | Th.                       | Pr.       | OJT-Man. | OJT-Rec. | Total      | Th.              | Pr.        | Proj. | Viva      | Total      | Weightage (%) (if applicable) |
| 3.                                       | Supervise Telecom and Communication Systems in Metro Railways | DMR/LSC/NO 602, v1.0                      | Core           | 4.5              | 0.5                 | 07                        | 08        | -        | -        | 15         | 20               | 20         | -     | 10        | 50         | 20                            |
| 4.                                       | Supervise Metro Train Operations in Non-ATP Modes             | DMR/LSC/NO 603, v1.0                      | Core           | 4.5              | 0.5                 | 05                        | 10        | -        | -        | 15         | 20               | 20         | -     | 10        | 50         | 20                            |
| 5.                                       | Employability Skills (30 Hours)                               | DGT/VSQ/NO 101, v1.0                      | Non-Core       | 2.0              | 1                   | 30                        | -         | -        | -        | 30         | 20               | 30         | -     | -         | 50         | 10                            |
| <b>Duration (in Hours) / Total Marks</b> |                                                               |                                           |                |                  | <b>6</b>            | <b>112</b>                | <b>68</b> | <b>-</b> |          | <b>180</b> | <b>100</b>       | <b>110</b> |       | <b>40</b> | <b>250</b> | <b>80</b>                     |

### Elective NOS 1: Station Controller

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

*Th.-Theory Pr.-Practical OJT-On the Job Training Man.-Mandatory Rec.-Recommended Proj.-Project*

| S. No                                    | NOS/Module Name                                                             | NOS/Module Code & Version (if applicable) | Core/ Non-Core | NCrF/NS QF Level | Credits as per NCrF | Training Duration (Hours) |           |           |          |            | Assessment Marks |           |       |           |            |                               |
|------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------|----------------|------------------|---------------------|---------------------------|-----------|-----------|----------|------------|------------------|-----------|-------|-----------|------------|-------------------------------|
|                                          |                                                                             |                                           |                |                  |                     | Th.                       | Pr.       | OJT-Man.  | OJT-Rec. | Total      | Th.              | Pr.       | Proj. | Viva      | Total      | Weightage (%) (if applicable) |
| 1.                                       | Supervise Automated Fare Collection (AFC) system operations and maintenance | DMR/LSC/NO 604, v1.0                      | Core           | 4.5              | 0.6                 | 05                        | 15        | 0         | -        | 20         | 20               | 20        | -     | 10        | 50         | 10                            |
| 2.                                       | Supervise metro station operations                                          | DMR/LSC/NO 605, v1.0                      | Core           | 4.5              | 3.4                 | 30                        | 40        | 30        | -        | 100        | 20               | 20        | -     | 10        | 50         | 10                            |
| <b>Duration (in Hours) / Total Marks</b> |                                                                             |                                           |                |                  | <b>4</b>            | <b>35</b>                 | <b>55</b> | <b>30</b> |          | <b>120</b> | <b>40</b>        | <b>40</b> |       | <b>20</b> | <b>100</b> | <b>20</b>                     |

### Elective NOS 2: Train Operator

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

*Th.-Theory Pr.-Practical OJT-On the Job Training Man.-Mandatory Rec.-Recommended Proj.-Project*

| S. No                                    | NOS/Module Name                                                                | NOS/Module Code & Version (if applicable) | Core/ Non-Core | NCrF/NS QF Level | Credits as per NCrF | Training Duration (Hours) |            |          |          |            | Assessment Marks |           |       |           |            |                               |
|------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------|----------------|------------------|---------------------|---------------------------|------------|----------|----------|------------|------------------|-----------|-------|-----------|------------|-------------------------------|
|                                          |                                                                                |                                           |                |                  |                     | Th.                       | Pr.        | OJT-Man. | OJT-Rec. | Total      | Th.              | Pr.       | Proj. | Viva      | Total      | Weightage (%) (if applicable) |
| 1.                                       | Supervise and troubleshoot rolling stock                                       | DMR/LSC/NO 606, v1.0                      | Core           | 4.5              | 3                   | 20                        | 70         | 0        | -        | 90         | 20               | 20        | -     | 10        | 50         | 10                            |
| 2.                                       | Supervise SOP train operations and practical tasks                             | DMR/LSC/NO 607, v1.0                      | Core           | 4.5              | 1                   | 10                        | 20         | 0        | -        | 30         | 20               | 20        | -     | 10        | 50         | 5                             |
| 3.                                       | Operate metro train on test track, mainline (non-revenue hours), and simulator | DMR/LSC/NO 608, v1.0                      | Core           | 4.5              | 3                   | 0                         | 90         | 0        | -        | 90         | 20               | 20        | -     | 10        | 50         | 5                             |
| <b>Duration (in Hours) / Total Marks</b> |                                                                                |                                           |                |                  | <b>7</b>            | <b>30</b>                 | <b>180</b> | <b>0</b> | <b>-</b> | <b>210</b> | <b>60</b>        | <b>60</b> |       | <b>30</b> | <b>150</b> | <b>20</b>                     |

## Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

**Minimum Pass Percentage – Aggregate at qualification level: 60 %** (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

**Minimum Pass Percentage – NOS/Module-wise: 60 %** (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

## Section 3: Training Related

|    |                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | <b>Trainer's Qualification and experience in the relevant sector (in years)</b> (as per NCVET guidelines)        | <p><b>Educational Qualification:</b> Graduate/Diploma in Electrical Engineering/ Mechanical Engineering/ Electronics and Communication Engineering/ Civil Engineering.</p> <p><b>Industry &amp; Training Experience:</b> 2 years of industry experience in relevant field</p> <p><b>Certification:</b> "Trainer" mapped to the Qualification Pack "MEP/Q2601" Minimum accepted score is 80% aggregate</p>        |
| 2. | <b>Master Trainer's Qualification and experience in the relevant sector (in years)</b> (as per NCVET guidelines) | <p><b>Educational Qualification:</b> Graduate/Diploma in Electrical Engineering/ Mechanical Engineering/ Electronics and Communication Engineering/ Civil Engineering.</p> <p><b>Industry &amp; Training Experience:</b> 4 years of industry experience in relevant field</p> <p><b>Certification:</b> "Master Trainer" mapped to the Qualification Pack "MEP/Q2602" Minimum accepted score is 90% aggregate</p> |

|    |                                                                                         |                                                                                                                    |
|----|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 3. | <b>Tools and Equipment Required for Training</b>                                        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If “Yes”, details to be provided in Annexure) |
| 4. | <b>In Case of Revised Qualification, Details of Any Upskilling Required for Trainer</b> | NA                                                                                                                 |

## Section 4: Assessment Related

|    |                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | <b>Assessor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>                | <p><b>Educational Qualification:</b> Graduate/Diploma in Electrical Engineering/ Mechanical Engineering/ Electronics and Communication Engineering/ Civil Engineering.</p> <p><b>Industry &amp; Training Experience:</b> 2 years of industry experience in relevant field</p> <p><b>Certification:</b> “Assessor” mapped to the Qualification Pack “MEP/Q2701” Minimum accepted score is 80% aggregate.</p>       |
| 2. | <b>Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>                 | <p><b>Educational Qualification:</b> Graduate/Diploma in Electrical Engineering/ Mechanical Engineering/ Electronics and Communication Engineering/ Civil Engineering.</p> <p><b>Industry &amp; Training Experience:</b> 2 years of industry experience in relevant field</p> <p><b>Certification:</b> “Assessor” mapped to the Qualification Pack “MEP/Q2701” Minimum accepted score is 80% aggregate.</p>       |
| 3. | <b>Lead Assessor’s/Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b> | <p><b>Educational Qualification:</b> Graduate/Diploma in Electrical Engineering/ Mechanical Engineering/ Electronics and Communication Engineering/ Civil Engineering.</p> <p><b>Industry &amp; Training Experience:</b> 4 years of industry experience in relevant field.</p> <p><b>Certification:</b> “Lead Assessor” mapped to the Qualification Pack “MEP/Q2702” Minimum accepted score is 90% aggregate.</p> |
| 4. | <b>Assessment Mode (Specify the assessment mode)</b>                                                                  | <b>Offline/ Online</b>                                                                                                                                                                                                                                                                                                                                                                                            |
| 5. | <b>Tools and Equipment Required for Assessment</b>                                                                    | <input checked="" type="checkbox"/> Same as for training <input type="checkbox"/> Yes <input type="checkbox"/> No (details to be provided in Annexure-if it is different for Assessment)                                                                                                                                                                                                                          |

## Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

|    |                                                                      |
|----|----------------------------------------------------------------------|
| 1. | <b>Latest Skill Gap Study (not older than 2 years) (Yes/No):</b> Yes |
|----|----------------------------------------------------------------------|



|    |                                                                                                                      |
|----|----------------------------------------------------------------------------------------------------------------------|
| 2. | <b>Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):</b> NA                      |
| 3. | <b>Government /Industry initiatives/ requirement (Yes/No):</b> NA                                                    |
| 4. | <b>Number of Industry validation provided:</b> -                                                                     |
| 5. | <b>Estimated nos. of persons to be trained and employed:</b> 1000                                                    |
| 6. | <b>Evidence of Concurrence/Consultation with Line Ministry/State Departments:</b> <i>In Process</i><br>If “No”, why: |

## Section 6: Annexure & Supporting Documents Check List

*Specify Annexure Name / Supporting document file name*

|     |                                                                                                                             |                   |
|-----|-----------------------------------------------------------------------------------------------------------------------------|-------------------|
| 1.  | <b>Annexure:</b> NCrf/NSQF level justification based on NCrf level/NSQF descriptors <i>(Mandatory)</i>                      | <i>Annexure 1</i> |
| 2.  | <b>Annexure:</b> List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i> | <i>Annexure 2</i> |
| 3.  | <b>Annexure:</b> Detailed Assessment Criteria <i>(Mandatory)</i>                                                            | <i>Annexure 6</i> |
| 4.  | <b>Annexure:</b> Assessment Strategy <i>(Mandatory)</i>                                                                     | <i>Annexure 7</i> |
| 5.  | <b>Annexure:</b> Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>               | <i>NA</i>         |
| 6.  | <b>Annexure:</b> Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>              | <i>NA</i>         |
| 7.  | <b>Annexure:</b> Acronym and Glossary <i>(Optional)</i>                                                                     | <i>Annexure 8</i> |
| 8.  | <b>Supporting Document:</b> Model Curriculum <i>(Mandatory – Public view)</i>                                               | <i>Attached</i>   |
| 9.  | <b>Supporting Document:</b> Career Progression <i>(Mandatory - Public view)</i>                                             | <i>Attached</i>   |
| 10. | <b>Supporting Document:</b> Occupational Map <i>(Mandatory)</i>                                                             | <i>Attached</i>   |
| 11. | <b>Supporting Document:</b> Assessment SOP <i>(Mandatory)</i>                                                               | <i>Attached</i>   |
| 12. | <b>Any other document you wish to submit:</b>                                                                               | <i>NO</i>         |

## Annexure 1: Evidence of Level

| NCrf/NSQF Level Descriptors | Key requirements of the job role/ outcome of the qualification | How the job role/ outcomes relate to the NCrf/NSQF level descriptor | NCrf/NSQF Level |
|-----------------------------|----------------------------------------------------------------|---------------------------------------------------------------------|-----------------|
|-----------------------------|----------------------------------------------------------------|---------------------------------------------------------------------|-----------------|

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Professional Theoretical Knowledge/Process</b> | <ul style="list-style-type: none"> <li>• <b>Supervise the Operations and Maintenance of Signaling Systems in Metro Railways:</b> <ul style="list-style-type: none"> <li>○ Manage and troubleshoot critical signaling systems such as ATS, ATP, and Platform Screen Doors (PSD).</li> <li>○ Ensure smooth functioning and compliance with operational standards.</li> <li>○ Conduct routine inspections and resolve system failures promptly.</li> </ul> </li> <li>• <b>Supervise the Telecom and Communication Systems in Metro Railways:</b> <ul style="list-style-type: none"> <li>○ Operate and manage systems like Train Radio, hand-portable devices, and emergency communication equipment.</li> <li>○ Oversee Passenger Information Display Systems (PIDS) and Public Address Systems (PAS).</li> <li>○ Ensure efficient and timely communication during emergencies.</li> </ul> </li> <li>• <b>Supervise Metro Train Operations in Non-ATP Modes:</b> <ul style="list-style-type: none"> <li>○ Operate trains efficiently in non-ATP scenarios and manage related procedures.</li> <li>○ Perform case studies and role-plays to enhance decision-making in non-ATP modes.</li> <li>○ Utilize simulators to train and evaluate operational efficiency.</li> </ul> </li> <li>• <b>Supervise the Inspection and Maintenance of Automated Fare Collection (AFC) Systems:</b> <ul style="list-style-type: none"> <li>○ Oversee AFC components such as gates, Ticket Office Machines (TOM), and Ticket Vending Machines (TVM).</li> <li>○ Ensure accurate maintenance and troubleshooting of AFC equipment.</li> <li>○ Manage station control computers and AFC media updates.</li> </ul> </li> <li>• <b>Supervise Metro Station Operations:</b> <ul style="list-style-type: none"> <li>○ Ensure compliance with standard operating procedures (SOP) and handle passenger complaints.</li> </ul> </li> </ul> | <p>The Supervisor - Operations (Metro Rail) is responsible for overseeing the safe and efficient functioning of metro station operations and train services. This role requires a strong understanding of operational protocols, including signaling, telecom, fare collection, and rolling stock management. The individual ensures that all systems, including Automatic Train Supervision (ATS), Automatic Train Protection (ATP), and Platform Screen Doors (PSD), are functioning smoothly and efficiently.</p> <p>In addition to system oversight, the individual manages train operations in non-ATP modes, troubleshoots issues, and coordinates emergency procedures. Proficiency in managing metro station operations, handling equipment like escalators, lifts, and traction systems, and ensuring the smooth operation of automated fare collection (AFC) systems is crucial.</p> <p>The individual is also tasked with training and guiding the operational team, conducting routine inspections, and ensuring safety compliance. Decision-making skills, problem-solving, and adherence to standard operating procedures (SOPs) are essential for maintaining operational excellence and resolving operational challenges promptly.</p> <p>The role's combination of technical expertise, decision-making abilities, and supervisory duties aligns it with Level 4.5 of the NCRF/NSQF descriptors.</p> | 4.5 |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|

|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|                                                                             | <ul style="list-style-type: none"> <li>○ Manage equipment like escalators, lifts, traction systems, and ventilation setups.</li> <li>○ Conduct mock drills, defect recording, and contract management for station facilities.</li> <li>• <b>Supervise and Troubleshoot Rolling Stock:</b> <ul style="list-style-type: none"> <li>○ Manage the operation and maintenance of train subsystems and rolling stock.</li> <li>○ Conduct practical exposure sessions and simulator training for troubleshooting.</li> <li>○ Ensure reliability and adherence to safety protocols for rolling stock systems.</li> </ul> </li> <li>• <b>Supervise Training and Safety in Metro Operations:</b> <ul style="list-style-type: none"> <li>○ Design and conduct structured training modules for metro staff.</li> <li>○ Implement fire safety, first aid, and rescue procedures.</li> <li>○ Monitor operational readiness and customer care during emergencies.</li> </ul> </li> <li>• <b>Implement Metro Operations Training and Safety Procedures:</b> <ul style="list-style-type: none"> <li>○ Design and deliver structured training modules and safety procedures.</li> <li>○ Conduct first aid and fire safety training.</li> <li>○ Manage operations and customer care while ensuring readiness for emergencies.</li> </ul> </li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     |
| <b>Professional and Technical Skills/ Expertise/ Professional Knowledge</b> | <ul style="list-style-type: none"> <li>• Know how to manage and troubleshoot critical signaling systems like ATS, ATP, and PSD to ensure seamless metro train operations.</li> <li>• Understand how to inspect signaling systems and resolve issues promptly to maintain system integrity and compliance with operational standards.</li> <li>• Know how to operate and manage telecom systems such as Train Radio and emergency communication equipment to ensure efficient communication during emergencies.</li> <li>• Understand how to oversee Passenger Information Display Systems (PIDS) and Public Address Systems (PAS) to provide clear communication to passengers.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>A Supervisor - Operations (Metro Rail) must be skilled in overseeing the operation and maintenance of key metro station equipment, including escalators, lifts, traction systems, and ventilation setups. They should be proficient in managing and troubleshooting Automated Fare Collection (AFC) systems, ensuring smooth ticketing and passenger flow.</p> <p>The individual must also ensure compliance with standard operating procedures (SOPs) for station operations, including managing passenger complaints and overseeing station facility maintenance. Additionally, they should supervise rolling stock operations, conduct failure analysis, and ensure the reliability of metro trains.</p> | 4.5 |

|                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|                                                                                             | <ul style="list-style-type: none"> <li>• Know how to operate trains in non-ATP modes and manage procedures to ensure operational efficiency and passenger safety.</li> <li>• Understand how to use simulators for training and evaluating non-ATP mode operations to enhance decision-making capabilities in real scenarios.</li> <li>• Know how to oversee and inspect AFC systems like gates, Ticket Office Machines (TOM), and Ticket Vending Machines (TVM) to ensure accurate functioning and maintenance.</li> <li>• Understand how to manage station control systems and update AFC media to ensure smooth passenger ticketing processes.</li> <li>• Know how to conduct inspections of escalators, lifts, and other station equipment to ensure compliance with safety protocols and functionality.</li> <li>• Understand how to perform mock drills and handle defect recording to manage emergency situations and maintain station reliability.</li> <li>• Know how to supervise and troubleshoot rolling stock systems to maintain the operational efficiency and safety of trains.</li> <li>• Understand how to conduct practical training sessions and use simulators to ensure staff proficiency in handling rolling stock maintenance.</li> <li>• Know how to design and implement structured training modules for metro staff, ensuring operational readiness and customer service excellence.</li> <li>• Understand how to implement fire safety, first aid, and rescue procedures to maintain safety standards in the metro operations.</li> <li>• Know how to monitor operational readiness and assess customer care procedures to ensure high service quality during emergencies.</li> </ul> | <p>The role requires expertise in implementing emergency protocols, such as first aid, fire safety, and rescue procedures. The person must also be capable of leading training programs for metro staff, ensuring they are well-prepared for both daily operations and emergencies. Monitoring energy consumption and implementing energy-saving measures are also essential responsibilities of the role. This position is classified under Level 4.5.</p> |     |
| <b>Employment Readiness &amp; Entrepreneurship Skills &amp; Mind-set/Professional Skill</b> | <ul style="list-style-type: none"> <li>• Select appropriate tools and techniques for conducting effective maintenance and troubleshooting of complex systems such as escalators, lifts, traction systems, ventilation, and rolling stock in metro stations and train operations.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Individuals in the Supervisor - Operations (Metro Rail) role should demonstrate strong employability skills, including effective communication, leadership, and conflict resolution. The ability to interpret technical documentation and clearly convey complex information to</p>                                                                                                                                                                      | 4.5 |

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|                                           | <ul style="list-style-type: none"> <li>Identify training and development needs within the station and train operations team to enhance skills, improve productivity, and ensure compliance with safety, operational, and industry standards.</li> <li>Supervise daily operations in metro stations and train services, ensuring adherence to established safety protocols, operational procedures, and customer service standards to promote efficiency and minimize risks.</li> <li>Develop and implement maintenance schedules for metro station facilities, rolling stock, and related equipment, ensuring systems are maintained for peak performance and minimal downtime.</li> <li>Evaluate key performance indicators (KPIs) to assess operational efficiency of metro services, identify areas for improvement, and recommend adjustments to optimize service quality and outcomes.</li> <li>Manage project timelines, budgets, and resources for station operations and train services, ensuring timely completion of tasks and adherence to quality standards while maintaining financial controls.</li> <li>Foster a collaborative and open working environment by encouraging communication and teamwork among station staff, train operators, and other stakeholders to achieve common operational goals.</li> <li>Adapt to new technologies and trends in metro station management and train operations, ensuring continuous learning and application of innovative practices to stay competitive and enhance operational efficiency.</li> <li>Create and maintain comprehensive records and documentation for all station management activities, including maintenance schedules, system upgrades, performance assessments, and regulatory compliance.</li> <li>Promote a culture of safety, risk management, and continuous improvement in metro operations by encouraging proactive problem-solving, safety audits, and feedback within the team.</li> </ul> | <p>both team members and stakeholders is essential for success.</p> <p>Additionally, supervisors should exhibit proactive problem-solving skills to address operational challenges, while fostering collaboration and teamwork within the station and train operations. Their entrepreneurial mindset drives innovation in maintenance strategies, enhances operational efficiency, and ensures compliance with safety standards. Supervisors must also ensure that tasks are completed within project timelines and meet performance targets. This aligns the role with Level 4.5.</p> |     |
| <b>Broad Learning Outcomes/Core Skill</b> | <ul style="list-style-type: none"> <li>Supervise Station Operations: Ensure the smooth operation and maintenance of station facilities,</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | At Level 4.5, the Supervisor - Operations (Metro Rail) is expected to demonstrate comprehensive learning outcomes that cover critical skills in technical literacy,                                                                                                                                                                                                                                                                                                                                                                                                                     | 4.5 |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | <p>including passenger areas, platforms, and related systems (e.g., ventilation, lighting, and signage).</p> <ul style="list-style-type: none"> <li>• Supervise Train Operations: Monitor and oversee the safe and efficient operation of trains, ensuring adherence to timetables, operational protocols, and safety standards.</li> <li>• Conduct Routine Inspections: Regularly inspect train stations, tracks, and related infrastructure to ensure operational efficiency, safety compliance, and prompt identification of issues.</li> <li>• Ensure Safety Standards: Enforce safety measures, including the implementation of emergency procedures, evacuation drills, and the training of staff in safety protocols.</li> <li>• Oversee Equipment Maintenance: Supervise the maintenance and troubleshooting of station equipment such as escalators, lifts, ticketing systems, and platform screen doors.</li> <li>• Energy Efficiency Management: Evaluate and implement energy-saving measures across station operations to optimize energy consumption and reduce operational costs.</li> <li>• Handle Station and Train Communication Systems: Supervise and ensure effective communication systems for operational coordination between stations and trains, including public announcement systems, passenger information displays, and emergency communication systems.</li> <li>• Manage Operational Teams: Coordinate station and train operation teams, ensuring smooth communication, adherence to schedules, and operational excellence.</li> <li>• Ensure Compliance with Regulatory Standards: Ensure all station operations, from ticketing to train management, comply with legal and industry standards.</li> <li>• Supervise Training for Staff: Oversee the training of metro station staff, ensuring they are well-equipped to handle customer service, emergency situations, and operational tasks.</li> </ul> | <p>operational oversight, and problem-solving. They must effectively apply technical knowledge to supervise and maintain station and train operations, ensuring the efficient functioning of station infrastructure, such as escalators, lifts, and ticketing systems, while ensuring compliance with safety protocols. Strong analytical skills are essential for evaluating the performance of systems, identifying operational challenges, and implementing improvements based on operational data. In addition, supervisors should be proficient in maintaining thorough documentation, producing detailed reports on maintenance activities, and ensuring adherence to regulatory standards and safety requirements across station and train operations.</p> |  |
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|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|                       | <ul style="list-style-type: none"> <li>Problem-Solving: Address and resolve operational challenges, such as delays, technical issues, or safety concerns, in a timely and effective manner.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |
| <b>Responsibility</b> | <ul style="list-style-type: none"> <li>Assess signaling systems to ensure compliance with safety and operational standards.</li> <li>Troubleshoot and resolve issues related to Automatic Train Supervision (ATS) and Automatic Train Protection (ATP) systems.</li> <li>Inspect platform screen doors (PSD) for operational functionality and safety compliance.</li> <li>Collaborate with teams to ensure seamless communication and resolution of technical issues within station operations.</li> <li>Monitor and inspect train operations to ensure adherence to schedules and safe movement across stations.</li> <li>Document and implement findings from station operational reviews, recommending improvements for enhanced efficiency.</li> <li>Verify proper functioning of CCTV systems, including ATS and platform surveillance for passenger safety.</li> <li>Assess the operational modes and compliance of tunnel ventilation systems to ensure optimal airflow and safety.</li> <li>Address any operational issues in tunnel ventilation systems, ensuring compliance with safety protocols.</li> <li>Inspect fire detection and suppression systems at stations to ensure operational readiness and compliance with safety standards.</li> <li>Identify and resolve challenges in the commissioning of fire systems to ensure station safety.</li> <li>Inspect and assess the functionality of escalators, lifts, and other station equipment to ensure smooth operations.</li> <li>Oversee Automated Fare Collection (AFC) systems, ensuring efficient functioning of ticketing and gate operations.</li> <li>Monitor station systems such as TVS, BMS, and ECS for efficient functioning and operational integrity.</li> </ul> | <p>The Supervisor - Operations (Metro Rail) is responsible for overseeing the smooth and efficient operation of metro stations, including both underground and elevated stations. This role involves supervising the daily operations of metro train services, platform management, signaling systems, and essential infrastructure, ensuring compliance with safety standards and operational protocols. The individual ensures efficient train movements, effective passenger service, and coordination between different teams for maintenance and troubleshooting. The role also involves overseeing Automated Fare Collection (AFC) systems, platform screen doors, and other critical station systems. Key personal attributes include strong leadership skills, effective communication, the ability to manage multiple tasks simultaneously, and a commitment to safety and operational excellence. The person must also demonstrate proactive problem-solving, quick decision-making in emergencies, and the ability to optimize station operations for better efficiency and customer satisfaction. Hence, it falls under Level 4.5.</p> | 4.5 |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|  | <ul style="list-style-type: none"> <li>• Inspect and maintain water supply and wastewater systems, ensuring proper operation across station facilities.</li> <li>• Evaluate hydraulic systems to ensure operational reliability and recommend preventive measures for failure mitigation.</li> <li>• Monitor and assess energy consumption across station facilities and implement energy-saving measures.</li> <li>• Supervise the operation of building management systems (BMS), ensuring that alarms, trends, and faults are tracked and addressed promptly.</li> <li>• Assess Diesel Generator (DG) and UPS systems for operational efficiency and reliability, ensuring continuous power supply to the station.</li> <li>• Inspect Low Tension (LT) power distribution systems and ACB interlocking schemes for safety and operational reliability.</li> <li>• Coordinate station operations to ensure compliance with Standard Operating Procedures (SOPs), safety regulations, and customer service standards.</li> <li>• Address passenger complaints and operational challenges by implementing corrective actions and service improvements.</li> <li>• Ensure effective supervision of escalator, lift, and traveller operations, guaranteeing smooth and safe transport for passengers.</li> <li>• Oversee ticketing operations and Automated Fare Collection (AFC) systems to maintain high standards of passenger service and revenue management.</li> </ul> |  |  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

### Annexure 2: Tools and Equipment (Lab Set-Up)

#### List of Tools and Equipment

Batch Size: 30

| S. No. | Tool / Equipment Name | Specification | Quantity for specified Batch size |
|--------|-----------------------|---------------|-----------------------------------|
| 1.     | PPE (HV Vest, Helmet) | Nos.          | 01                                |
| 2.     | Fire Extinguishers    | Nos.          | 01                                |
| 3.     | Hand Signals Flags    | Nos.          | 01                                |
| 4.     | Tricolor torch        | Nos.          | 01                                |



|     |                        |      |    |
|-----|------------------------|------|----|
| 5.  | Three Cell Torch       | Nos. | 01 |
| 6.  | First Aid Kit          | Nos. | 01 |
| 7.  | Wheel Chair            | Nos. | 01 |
| 8.  | Stretcher              | Nos. | 01 |
| 9.  | Pick up rod            | Nos. | 01 |
| 10. | Loud Hailer/Mega Phone | Nos. | 01 |
| 11. | Hand Portable/Tetra    | Nos. | 01 |
| 12. | Fire Extinguishers     | Nos. | 01 |
| 13. | Hand Signals Flags     | Nos. | 01 |
| 14. | Tricolor torch         | Nos. | 01 |
| 15. | Three Cell Torch       | Nos. | 01 |
| 16. | First Aid Kit          | Nos. | 01 |
| 17. | Wheel Chair            | Nos. | 01 |
| 18. | Stretcher              | Nos. | 01 |
| 19. | Pick up rod            | Nos. | 01 |
| 20. | Loud Hailer/Mega Phone | Nos. | 01 |
| 21. | Square Key             | Nos. | 01 |

#### Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Projector
3. Computer/Laptop
4. Chairs
5. Tables
6. Whiteboard marker
7. Duster

### Annexure 3: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

| S. No | Organization Name | Representative Name | Designation | Contact Address | Contact Phone No | E-mail ID | LinkedIn Profile (if available) |
|-------|-------------------|---------------------|-------------|-----------------|------------------|-----------|---------------------------------|
| 1.    |                   |                     |             |                 |                  |           |                                 |
| 2.    |                   |                     |             |                 |                  |           |                                 |

### Annexure 4: Training & Employment Details

#### Training and Employment Projections:

| Year | Total Candidates     |                                    | Women                |                                    | People with Disability |                                    |
|------|----------------------|------------------------------------|----------------------|------------------------------------|------------------------|------------------------------------|
|      | Estimated Training # | Estimated Employment Opportunities | Estimated Training # | Estimated Employment Opportunities | Estimated Training #   | Estimated Employment Opportunities |
| 2025 | 200                  | 75                                 | 10                   | 5                                  | 5                      | 5                                  |
| 2026 | 300                  | 100                                | 15                   | 10                                 | 10                     | 10                                 |
| 2027 | 500                  | 200                                | 25                   | 10                                 | 10                     | 10                                 |

Data to be provided year-wise for next 3 years

#### Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

| Qualification Version | Year | Total Candidates |          |           |        | Women   |          |           |        | People with Disability |          |           |        |
|-----------------------|------|------------------|----------|-----------|--------|---------|----------|-----------|--------|------------------------|----------|-----------|--------|
|                       |      | Trained          | Assessed | Certified | Placed | Trained | Assessed | Certified | Placed | Trained                | Assessed | Certified | Placed |
|                       |      |                  |          |           |        |         |          |           |        |                        |          |           |        |
|                       |      |                  |          |           |        |         |          |           |        |                        |          |           |        |

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

#### List Schemes in which the previous version of Qualification was implemented:

- 1.
- 2.

#### Content availability for previous versions of qualifications:

☒ Participant Handbook ☒ Facilitator Guide ☒ Digital Content ☒ Qualification Handbook ☐ Any Other:

#### Languages in which Content is available:

## Annexure 5: Blended Learning

### Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET “Guidelines for Blended Learning for Vocational Education, Training & Skilling” available on:

<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf>

| S. No. | Select the Components of the Qualification                                                                    | List Recommended Tools – for all Selected Components  | Offline : Online Ratio |
|--------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------|
| 1      | <input type="checkbox"/> Theory/ Lectures - Imparting theoretical and conceptual knowledge                    | Classroom Training through PPTs                       | 60:40                  |
| 2      | <input type="checkbox"/> Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners | Classroom Training through PPTs                       | 60:40                  |
| 3      | <input type="checkbox"/> Showing Practical Demonstrations to the learners                                     | Practical demonstrations at DMRC Metro Stations       | 60:40                  |
| 4      | <input type="checkbox"/> Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training         | Practical demonstrations & OJT at DMRC Metro Stations | 60:40                  |
| 5      | <input type="checkbox"/> Tutorials/ Assignments/ Drill/ Practice                                              | Drills / Practice at DMRA & DMRC Metro Stations       | 60:40                  |
| 6      | <input type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations                           | Online Examination in DMRA Computer Lab               | 60:40                  |
| 7      | <input type="checkbox"/> On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training          | OJT at DMRC Metro Stations                            | 60:40                  |

## Annexure 6: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

| NOS/Module Name                                                          | Assessment Criteria for Performance Criteria/Learning Outcomes                                                 | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------|-----------------|---------------|------------|
| DMR/LSC/N9901: Implement metro operations training and safety procedures | <i>Training Module Overview</i>                                                                                | 2            | 2               | -             | 1          |
|                                                                          | PC1. follow schedules for weekly activities and guidelines on punctuality, discipline, and conduct.            | -            | -               | -             | -          |
|                                                                          | PC2. conduct identity verification and maintain attendance records                                             | -            | -               | -             | -          |
|                                                                          | PC3. ensure adherence to training timelines and program deliverables                                           | -            | -               | -             | -          |
|                                                                          | <i>Safety Overview</i>                                                                                         | 2            | 2               | -             | 1          |
|                                                                          | PC4. identify the role of the safety department and follow measures for personal, passenger, and system safety | -            | -               | -             | -          |
|                                                                          | PC5. use appropriate Personal Protective Equipment (PPE) in all designated areas                               | -            | -               | -             | -          |
|                                                                          | PC6. follow the hazard identification and risk assessment processes                                            | -            | -               | -             | -          |
|                                                                          | <i>Store Management and Procurement</i>                                                                        | 2            | 2               | -             | 1          |

|                                                          |                                                                                                                                   |   |   |   |     |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---|---|---|-----|
| PC7.                                                     | perform store management activities, including stock handling, documentation, and interdepartmental coordination for procurement. | - | - | - | -   |
| PC8.                                                     | monitor inventory levels and ensure timely requisitions for required materials                                                    | - | - | - | -   |
| PC9.                                                     | maintain records of procurement processes and vendor communication                                                                | - | - | - | -   |
| <i>Overview of Telecom, Signaling, and Track Systems</i> |                                                                                                                                   | 2 | 2 | - | 1   |
| PC10.                                                    | identify telecom components (AFC, CCTV, PIDS, radio systems, clocks) and perform basic functional checks                          | - | - | - | -   |
| PC11.                                                    | identify signaling systems (CATC, CBTC) and observe/report signal functioning during visits.                                      | - | - | - | -   |
| PC12.                                                    | identify P-Way components (rails, sleepers, crossings) and report track conditions through basic patrolling tasks                 | - | - | - | -   |
| PC13.                                                    | report malfunctions in telecom, signaling, or track systems using the correct reporting protocols                                 | - | - | - | -   |
| <i>Overview of Traction, SCADA, and E&amp;M Systems</i>  |                                                                                                                                   | 2 | 2 | - | 1   |
| PC14.                                                    | identify traction power and SCADA components and interpret sectioning diagrams                                                    | - | - | - | -   |
| PC15.                                                    | identify E&M systems (RSS, ASS, DG sets, UPS) and perform basic checks to understand their functionality                          | - | - | - | -   |
| PC16.                                                    | report unusual system performance and assist in routine inspections                                                               | - | - | - | -   |
| <i>OCC and Rolling Stock Overview</i>                    |                                                                                                                                   | 2 | 2 | - | 1   |
| PC17.                                                    | familiarize with OCC systems, tools, and the role of OCC controllers                                                              | - | - | - | -   |
| PC18.                                                    | identify rolling stock components and their maintenance procedures                                                                | - | - | - | -   |
| PC19.                                                    | report rolling stock irregularities observed during operations                                                                    | - | - | - | -   |
| <i>Operations and Customer Care</i>                      |                                                                                                                                   | 2 | 2 | - | 1   |
| PC20.                                                    | familiarize with station operations, revenue management, and crew control functions                                               | - | - | - | -   |
| PC21.                                                    | identify public complaint channels, possible causes, and resolve complaints using proper processes                                | - | - | - | -   |
| PC22.                                                    | assist in managing passenger inquiries and ensuring customer satisfaction                                                         | - | - | - | -   |
| <i>Practical Visits</i>                                  |                                                                                                                                   | 1 | 1 | - | 0.5 |
| PC23.                                                    | conduct visits to OCC, stations, depots, and tunnels to observe layouts, facilities, and operations                               | - | - | - | -   |
| PC24.                                                    | document key observations during practical visits for knowledge reinforcement                                                     | - | - | - | -   |
| PC25.                                                    | identify operational challenges during visits and suggest improvement areas                                                       | - | - | - | -   |
| <i>First Aid Training</i>                                |                                                                                                                                   | 1 | 1 | - | 0.5 |
| PC26.                                                    | identify the role and scope of first aid, including key human body functions (e.g., circulatory, respiratory systems)             | - | - | - | -   |
| PC27.                                                    | follow appropriate techniques for treating bleeding, fractures, burns, shock, and unconsciousness                                 | - | - | - | -   |
| PC28.                                                    | perform artificial respiration, CPR, and safe transportation of injured persons using stretchers                                  | - | - | - | -   |
| PC29.                                                    | participate in simulated first aid scenarios to enhance preparedness                                                              | - | - | - | -   |

|  |                                                                                                                                                                                                             |          |          |          |            |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|------------|
|  | <i>Fire Fighting Systems</i>                                                                                                                                                                                | <i>1</i> | <i>1</i> | <i>-</i> | <i>0.5</i> |
|  | PC30. identify elements of combustion, classes of fire, and appropriate extinguishing methods                                                                                                               | -        | -        | -        | -          |
|  | PC31. operate active/passive fire protection systems, including alarms, fire extinguishers, and fire hydrants                                                                                               | -        | -        | -        | -          |
|  | PC32. conduct practical drills and identify fire suppression equipment at metro stations                                                                                                                    | -        | -        | -        | -          |
|  | PC33. respond to fire incidents promptly, ensuring passenger and system safety                                                                                                                              | -        | -        | -        | -          |
|  | <i>Security in Metro Systems</i>                                                                                                                                                                            | <i>1</i> | <i>1</i> | <i>-</i> | <i>0.5</i> |
|  | PC34. identify security threats, red alert situations, and follow protocols for disaster management                                                                                                         | -        | -        | -        | -          |
|  | PC35. handle theft cases, manage abandoned persons, and lodge FIRs as per protocol                                                                                                                          | -        | -        | -        | -          |
|  | PC36. coordinate with security personnel to mitigate security breaches effectively                                                                                                                          | -        | -        | -        | -          |
|  | <i>Metro Rail General Rules 2020</i>                                                                                                                                                                        | <i>1</i> | <i>1</i> | <i>-</i> | <i>0.5</i> |
|  | PC37. interpret key provisions under Metro Rail General Rules 2020, and Metro Railways O&M Act 2002, including signals, train speed limits, and safety protocols                                            | -        | -        | -        | -          |
|  | PC38. follow operational procedures for maintenance, station control duties, and driverless train systems                                                                                                   | -        | -        | -        | -          |
|  | PC39. ensure compliance with rules for safe and efficient train operations                                                                                                                                  | -        | -        | -        | -          |
|  | <i>Safety Circulars and Contingency Plans</i>                                                                                                                                                               | <i>1</i> | <i>1</i> | <i>-</i> | <i>0.5</i> |
|  | PC40. implement procedures for the imposition of TSR, axle counter reset, Train ID management, and Computer Aided Train Supervision (CATS) operation                                                        | -        | -        | -        | -          |
|  | PC41. follow guidelines for engineering possession and maintenance activities during non-revenue hours, including hot work, solar system testing/repair, and role-play exercises                            | -        | -        | -        | -          |
|  | PC42. ensure compliance with procedures for stopping trains at platforms and during operational disruptions, such as earthquakes, high winds, and floods                                                    | -        | -        | -        | -          |
|  | PC43. coordinate degraded mode operations, including train movement during interlocking failures                                                                                                            | -        | -        | -        | -          |
|  | PC44. coordinate the issue, revision, updating, and deletion of SOPs, SWO/DWO, and timetable trials for new sections                                                                                        | -        | -        | -        | -          |
|  | PC45. facilitate the initiation of revenue train services, including pilot train movement, ATO/UTO/ATB mode operations, and AFTC functionality checks                                                       | -        | -        | -        | -          |
|  | PC46. follow procedures for negotiating neutral sections, dealing with pantograph failures, and monitoring Panto-OHE interface cameras                                                                      | -        | -        | -        | -          |
|  | PC47. coordinate train stabling, depot entry/exit, train movement, and fitness checks                                                                                                                       | -        | -        | -        | -          |
|  | PC48. conduct emergency evacuation using UG facilities, mid-tunnel shafts, and walkways for detrainment of passengers due to technical failure, explosion, or fire                                          | -        | -        | -        | -          |
|  | PC49. operate non-ATP vehicles such as RGM and CMV/CTMC and address incidents like rail fractures, weld failures, rollback scenarios, radio communication issues and resetting of passenger alarms in train | -        | -        | -        | -          |
|  | PC50. coordinate vehicle movement on link lines and rescue immobilized trains                                                                                                                               | -        | -        | -        | -          |

|                                                                                               |                                                                                                              |           |           |          |           |
|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------|-----------|----------|-----------|
|                                                                                               | PC51. respond to fire/smoke incidents, including UG train fires, ensuring passenger and staff safety         | -         | -         | -        | -         |
|                                                                                               | PC52. operate ETS/BLS plungers, remove foreign objects like kites from OHE, and follow OHE safety guidelines | -         | -         | -        | -         |
|                                                                                               | <b>Total Marks</b>                                                                                           | <b>20</b> | <b>20</b> | <b>-</b> | <b>10</b> |
| <b>DMR/LSC/N0601: Supervise the operations of signaling systems and platform screen doors</b> | <i>Basic Signaling</i>                                                                                       | 4         | 4         | -        | 2         |
|                                                                                               | PC1. identify signaling equipment, marker boards, and their functions on-site                                | -         | -         | -        | -         |
|                                                                                               | PC2. verify interlocking systems to ensure safe train movements                                              | -         | -         | -        | -         |
|                                                                                               | PC3. perform system checks for primary and secondary train detection systems                                 |           |           |          |           |
|                                                                                               | PC4. perform fault detection and report issues in train detection systems                                    |           |           |          |           |
|                                                                                               | <i>Signaling ATS</i>                                                                                         | 4         | 4         | -        | 2         |
|                                                                                               | PC5. operate ATS systems to execute commands and monitor indications                                         | -         | -         | -        | -         |
|                                                                                               | PC6. respond to abnormalities in ATS indications                                                             | -         | -         | -        | -         |
|                                                                                               | PC7. execute Visual Display Unit (VDU) commands and monitor their outcomes                                   | -         | -         | -        | -         |
|                                                                                               | PC8. verify system responses to executed VDU commands and resolve inconsistencies                            | -         | -         | -        | -         |
|                                                                                               | PC9. execute practical demonstrations of signaling commands using ATS/VDU systems                            | -         | -         | -        | -         |
|                                                                                               | PC10. monitor and document outcomes of signaling commands for operational accuracy                           | -         | -         | -        | -         |
|                                                                                               | <i>Signaling ATP</i>                                                                                         | 4         | 4         | -        | 2         |
|                                                                                               | PC11. familiarize with the operation of ATP hardware components and Driver Machine Interface (DMI)           | -         | -         | -        | -         |
|                                                                                               | PC12. execute driving mode selection and apply Automatic Train Control (ATC) safety features                 | -         | -         | -        | -         |
|                                                                                               | PC13. carry out operational procedures in degraded mode while ensuring safety standards                      | -         | -         | -        | -         |
|                                                                                               | PC14. supervise train operations in mainline and depot areas, ensuring adherence to safety protocols         | -         | -         | -        | -         |
|                                                                                               | PC15. perform troubleshooting to resolve common ATP faults and restore functionality                         | -         | -         | -        | -         |
|                                                                                               | PC16. carry out assessments with trackside ATP equipment                                                     | -         | -         | -        | -         |
|                                                                                               | PC17. perform operational checks on train-borne ATP equipment                                                | -         | -         | -        | -         |
|                                                                                               | PC18. execute operational tests on DMI indications and provide guidance to drivers                           | -         | -         | -        | -         |
|                                                                                               | <i>CCTV (ATS)</i>                                                                                            | 4         | 4         | -        | 2         |
|                                                                                               | PC19. operate CCTV systems to monitor train locations and movements                                          | -         | -         | -        | -         |
|                                                                                               | PC20. respond to emergencies using CCTV systems to mitigate risks and ensure safety                          | -         | -         | -        | -         |
|                                                                                               | <i>Platform Screen Doors (PSD)</i>                                                                           | 4         | 4         | -        | 2         |
|                                                                                               | PC21. familiarize with PSD layout, numbering, and numbering for accurate supervision                         | -         | -         | -        | -         |
|                                                                                               | PC22. verify the PSD layout and execute manual operations of PSD in case of system failure                   | -         | -         | -        | -         |
|                                                                                               | PC23. use safety labels and special keys to operate PSD as per standard procedures                           | -         | -         | -        | -         |
|                                                                                               | PC24. supervise adherence to PSD operating staff procedures during normal and emergency operations           | -         | -         | -        | -         |
|                                                                                               | PC25. carry out troubleshooting to identify and resolve PSD malfunctions effectively                         | -         | -         | -        | -         |

|                                                                                     | Total Marks                                                                                                                     | 20        | 20        | -        | 10        |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|----------|-----------|
| <b>DMR/LSC/N0602: Supervise telecom and communication systems in metro railways</b> | <i>Train Radio Operations</i>                                                                                                   | 3         | 3         | -        | 2         |
|                                                                                     | PC1. identify and operate various modules and keys on the train radio system                                                    | -         | -         | -        | -         |
|                                                                                     | PC2. initiate and manage various call types and group communication modes using the train radio                                 | -         | -         | -        | -         |
|                                                                                     | PC3. use key-buttons on TRCP, RCH, and handsets appropriately for seamless communication                                        | -         | -         | -        | -         |
|                                                                                     | <i>Handportable Devices &amp; RAU (Zetron)</i>                                                                                  | 3         | 3         | -        | 2         |
|                                                                                     | PC4. use handportable devices and RAU (Zetron) properly for communication tasks                                                 | -         | -         | -        | -         |
|                                                                                     | PC5. operate different keys and functions effectively on handportable devices and RAU (Zetron)                                  | -         | -         | -        | -         |
|                                                                                     | <i>Emergency Communication Procedures</i>                                                                                       | 3         | 3         | -        | 1         |
|                                                                                     | PC6. utilize appropriate communication protocols to convey emergency information clearly and promptly                           | -         | -         | -        | -         |
|                                                                                     | PC7. identify and operate available emergency communication systems to manage and resolve incidents                             | -         | -         | -        | -         |
|                                                                                     | <i>CCTV Operations</i>                                                                                                          | 3         | 3         | -        | 1         |
|                                                                                     | PC8. monitor and operate CCTV systems to ensure continuous surveillance and security within the metro railway                   | -         | -         | -        | -         |
|                                                                                     | <i>Communication Practices Using Handportable Train Radio</i>                                                                   | 4         | 4         | -        | 2         |
|                                                                                     | PC9. communicate procedures and actions effectively during door failure incidents using handportable/train radio                | -         | -         | -        | -         |
|                                                                                     | PC10. utilize communication systems to respond to and manage passenger alarm activations appropriately                          | -         | -         | -        | -         |
|                                                                                     | PC11. maintain effective communication during degraded mode operations and other system failures using handportable/train radio | -         | -         | -        | -         |
|                                                                                     | <i>PIDS/PAS Systems</i>                                                                                                         | 4         | 4         | -        | 2         |
|                                                                                     | PC12. operate Passenger Information Display System (PIDS) to display accurate and timely passenger information                  | -         | -         | -        | -         |
|                                                                                     | PC13. utilize Passenger Announcement System (PAS) to make clear and audible announcements to passengers                         | -         | -         | -        | -         |
|                                                                                     | PC14. navigate and manage system interfaces to ensure seamless operation of PIDS/PAS                                            | -         | -         | -        | -         |
|                                                                                     | PC15. switch between and manage different operational modes of PIDS/PAS systems as required                                     | -         | -         | -        | -         |
|                                                                                     | PC16. display various types of messages accurately and perform announcements using PIDS/PAS systems                             | -         | -         | -        | -         |
|                                                                                     | <b>Total Marks</b>                                                                                                              | <b>20</b> | <b>20</b> | <b>-</b> | <b>10</b> |
| <b>DMR/LSC/N0603: Supervise metro train operations in Non-ATP modes</b>             | <i>Train Operation in Non-ATP Modes</i>                                                                                         | 5         | 5         | -        | 4         |
|                                                                                     | PC1. inspect and prepare train systems for non-ATP operation, ensuring manual overrides and safety systems are functional       | -         | -         | -        | -         |

|                                                               |                                                                                                                                                                                                                                                          |           |           |          |           |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|----------|-----------|
|                                                               | PC2. transition to non-ATP mode following standard procedures and communicate with the control center for guidance                                                                                                                                       | -         | -         | -        | -         |
|                                                               | PC3. operate trains manually, maintaining prescribed speed limits, interpreting signals, and responding to trackside indicators                                                                                                                          | -         | -         | -        | -         |
|                                                               | PC4. ensure safe braking, acceleration, and alignment with platforms to facilitate passenger boarding and alighting                                                                                                                                      | -         | -         | -        | -         |
|                                                               | PC5. manage emergencies during non-ATP operations, such as system failures, signal loss, or unexpected obstacles                                                                                                                                         | -         | -         | -        | -         |
|                                                               | <i>ATP-related Procedure and Role Play</i>                                                                                                                                                                                                               | 5         | 5         | -        | 2         |
|                                                               | PC6. demonstrate emergency response actions, including train stoppage, passenger communication, and coordination with control                                                                                                                            | -         | -         | -        | -         |
|                                                               | PC7. participate in role-play scenarios to simulate non-ATP operation challenges, focusing on communication and decision-making                                                                                                                          | -         | -         | -        | -         |
|                                                               | <i>Case Study on Non-ATP Mode and Role Play</i>                                                                                                                                                                                                          | 5         | 5         | -        | 2         |
|                                                               | PC8. analyze case studies to identify risks, best practices, and lessons learned in non-ATP scenarios                                                                                                                                                    | -         | -         | -        | -         |
|                                                               | PC9. apply knowledge from case studies to role-play exercises, practicing situational awareness and quick decision-making                                                                                                                                | -         | -         | -        | -         |
|                                                               | <i>Simulator for Train Operation in Non-ATP Modes</i>                                                                                                                                                                                                    | 5         | 5         | -        | 2         |
|                                                               | PC10. operate a train simulator to practice manual operations, including braking, acceleration, and responding to simulated emergencies                                                                                                                  | -         | -         | -        | -         |
|                                                               | PC11. use simulator feedback to improve operational skills, focusing on safety and efficiency                                                                                                                                                            | -         | -         | -        | -         |
|                                                               | <b>Total Marks</b>                                                                                                                                                                                                                                       | <b>20</b> | <b>20</b> | <b>-</b> | <b>10</b> |
| <b>DGT/VSQ/N0101:<br/>Employability Skills (30<br/>Hours)</b> | <i>Introduction to Employability Skills</i>                                                                                                                                                                                                              | 1         | 1         | -        | -         |
|                                                               | PC1. understand the significance of employability skills in meeting the job requirements                                                                                                                                                                 | -         | -         | -        | -         |
|                                                               | <i>Constitutional values – Citizenship</i>                                                                                                                                                                                                               | 1         | 1         | -        | -         |
|                                                               | PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices                                                                                                                          | -         | -         | -        | -         |
|                                                               | <i>Becoming a Professional in the 21st Century</i>                                                                                                                                                                                                       | 1         | 3         | -        | -         |
|                                                               | PC3. explain 21st Century Skills such as Self- Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc. | -         | -         | -        | -         |
|                                                               | <i>Basic English Skills</i>                                                                                                                                                                                                                              | 2         | 3         | -        | -         |
|                                                               | PC4. speak with others using some basic English phrases or sentences                                                                                                                                                                                     | -         | -         | -        | -         |
|                                                               | <i>Communication Skills</i>                                                                                                                                                                                                                              | 1         | 1         | -        | -         |
|                                                               | follow good manners while communicating with others                                                                                                                                                                                                      | -         | -         | -        | -         |
|                                                               | PC5. work with others in a team                                                                                                                                                                                                                          | -         | -         | -        | -         |
|                                                               | <i>Diversity &amp; Inclusion</i>                                                                                                                                                                                                                         | 1         | 1         | -        | -         |
|                                                               | PC6. communicate and behave appropriately with all genders and PwD                                                                                                                                                                                       | -         | -         | -        | -         |
|                                                               | PC7. report any issues related to sexual harassment                                                                                                                                                                                                      | -         | -         | -        | -         |



|                                                                                                                                 |                                                                                                                      |           |           |          |          |
|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------|-----------|----------|----------|
|                                                                                                                                 | <i>Financial and Legal Literacy</i>                                                                                  | 3         | 4         | -        | -        |
|                                                                                                                                 | PC8. use various financial products and services safely and securely                                                 | -         | -         | -        | -        |
|                                                                                                                                 | PC9. calculate income, expenses, savings etc.                                                                        | -         | -         | -        | -        |
|                                                                                                                                 | PC10. approach the concerned authorities for any exploitation as per legal rights and laws                           | -         | -         | -        | -        |
|                                                                                                                                 | <i>Essential Digital Skills</i>                                                                                      | 4         | 6         | -        | -        |
|                                                                                                                                 | PC11. operate digital devices and use its features and applications securely and safely                              | -         | -         | -        | -        |
|                                                                                                                                 | PC12. use internet and social media platforms securely and safely                                                    | -         | -         | -        | -        |
|                                                                                                                                 | <i>Entrepreneurship</i>                                                                                              | 3         | 5         | -        | -        |
|                                                                                                                                 | PC13. identify and assess opportunities for potential business                                                       | -         | -         | -        | -        |
|                                                                                                                                 | PC14. identify sources for arranging money and associated financial and legal challenges                             | -         | -         | -        | -        |
|                                                                                                                                 | <i>Customer Service</i>                                                                                              | 2         | 2         | -        | -        |
|                                                                                                                                 | PC15. identify different types of customers                                                                          | -         | -         | -        | -        |
|                                                                                                                                 | PC16. identify customer needs and address them appropriately                                                         | -         | -         | -        | -        |
|                                                                                                                                 | PC17. follow appropriate hygiene and grooming standards                                                              | -         | -         | -        | -        |
|                                                                                                                                 | <i>Getting ready for apprenticeship &amp; Jobs</i>                                                                   | 1         | 3         | -        | -        |
|                                                                                                                                 | PC18. create a basic biodata                                                                                         | -         | -         | -        | -        |
|                                                                                                                                 | PC19. search for suitable jobs and apply                                                                             | -         | -         | -        | -        |
|                                                                                                                                 | PC20. identify and register apprenticeship opportunities as per requirement                                          | -         | -         | -        | -        |
|                                                                                                                                 | <b>Total Marks</b>                                                                                                   | <b>20</b> | <b>30</b> | <b>-</b> | <b>-</b> |
| <b>Elective NOS 1:</b><br><br><b>DMR/LSC/N0604: Supervise Automated Fare Collection (AFC) system operations and maintenance</b> | <i>AFC Gate</i>                                                                                                      | 3         | 3         | -        | 2        |
|                                                                                                                                 | PC1. identify types of AFC gates and their components, including nomenclature and functionalities                    | -         | -         | -        | -        |
|                                                                                                                                 | PC2. access and utilize the maintenance menu for diagnostics and routine checks                                      | -         | -         | -        | -        |
|                                                                                                                                 | PC3. execute the container replacement procedure accurately, ensuring secure handling of components                  | -         | -         | -        | -        |
|                                                                                                                                 | PC4. follow operational precautions to avoid system or component damage during maintenance and operation             | -         | -         | -        | -        |
|                                                                                                                                 | <i>Ticket Office Machine (TOM)</i>                                                                                   | 3         | 3         | -        | 2        |
|                                                                                                                                 | PC5. identify the types of TOMs and functions of their parts                                                         | -         | -         | -        | -        |
|                                                                                                                                 | PC6. operate the Man-Machine Interface (MMI) effectively for transaction processing and troubleshooting              | -         | -         | -        | -        |
|                                                                                                                                 | <i>Ticket Vending Machine (TVM)</i>                                                                                  | 2         | 2         | -        | 2        |
|                                                                                                                                 | PC7. supervise the operation of TVMs, ensuring smooth transaction processing and resolving common operational issues | -         | -         | -        | -        |
|                                                                                                                                 | <i>Station Control (SC) Computer</i>                                                                                 | 3         | 3         | -        | 1        |
|                                                                                                                                 | PC8. supervise SC computer functions and monitor AFC system performance                                              | -         | -         | -        | -        |
|                                                                                                                                 | PC9. execute procedures for changing gate and fare modes using the SC computer                                       | -         | -         | -        | -        |
|                                                                                                                                 | PC10. implement emergency commands and verify the effectiveness of the action                                        | -         | -         | -        | -        |
|                                                                                                                                 | PC11. access and analyze AFC reports from the SC computer for performance insights                                   | -         | -         | -        | -        |

|                                                                                        |                                                                                                             |           |           |          |           |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------|-----------|----------|-----------|
|                                                                                        | <i>AFC Media and Developments</i>                                                                           | 3         | 3         | -        | 1         |
|                                                                                        | PC12. analyze different AFC media, including QR codes, and identify their operational processes             | -         | -         | -        | -         |
|                                                                                        | PC13. interpret error codes and resolve media-related issues effectively                                    | -         | -         | -        | -         |
|                                                                                        | PC14. supervise and integrate the latest technological developments into AFC operations                     | -         | -         | -        | -         |
|                                                                                        | PC15. assess and manage different gate and fare modes to optimize system usability                          | -         | -         | -        | -         |
|                                                                                        | <i>AVM, HHT, RCTM/SCVM</i>                                                                                  | 3         | 3         | -        | 1         |
|                                                                                        | PC16. supervise and ensure proper functioning of Add Value Machines (AVM) and Handheld Terminals (HHT)      | -         | -         | -        | -         |
|                                                                                        | PC17. monitor operations of Rechargeable Card Ticket Machines (RCTM) and Smart Card Vending Machines (SCVM) | -         | -         | -        | -         |
|                                                                                        | <i>AFC Practical</i>                                                                                        | 3         | 3         | -        | 1         |
|                                                                                        | PC18. operate AFC gates, TOMs, TVMs, SC computers, and AFC media                                            | -         | -         | -        | -         |
|                                                                                        | PC19. conduct system inspections and recommend maintenance or corrective actions                            | -         | -         | -        | -         |
|                                                                                        | PC20. facilitate practical training sessions for team members on AFC systems                                | -         | -         | -        | -         |
|                                                                                        | <b>Total Marks</b>                                                                                          | <b>20</b> | <b>20</b> | <b>-</b> | <b>10</b> |
| <b>Elective NOS 1:</b><br><br><b>DMR/LSC/N0605: Supervise metro station operations</b> | <i>Station Working Order</i>                                                                                | 1         | 1         | -        | 0.5       |
|                                                                                        | PC1. implement and monitor station working orders to ensure seamless operations                             | -         | -         | -        | -         |
|                                                                                        | PC2. conduct regular checks to confirm compliance with SWO provisions                                       | -         | -         | -        | -         |
|                                                                                        | PC3. resolve operational deviations promptly                                                                | -         | -         | -        | -         |
|                                                                                        | <i>Station Layout</i>                                                                                       | 1         | 1         | -        | 0.5       |
|                                                                                        | PC4. interpret station layouts for underground, elevated, and at-grade stations                             | -         | -         | -        | -         |
|                                                                                        | PC5. optimize station area utilization for passenger safety and convenience                                 | -         | -         | -        | -         |
|                                                                                        | PC6. compare operational differences between various station types to plan resources effectively            | -         | -         | -        | -         |
|                                                                                        | <i>Traction Sectioning Diagram</i>                                                                          | 1         | 1         | -        | 0.5       |
|                                                                                        | PC7. read and interpret traction sectioning diagrams associated with power block operations                 | -         | -         | -        | -         |
|                                                                                        | PC8. coordinate with the traction team to ensure safe execution of power blocks                             | -         | -         | -        | -         |
|                                                                                        | PC9. maintain updated traction diagrams for reference and training                                          | -         | -         | -        | -         |
|                                                                                        | <i>Track Layout</i>                                                                                         | 1         | 1         | -        | 0.5       |
|                                                                                        | PC10. monitor station track layouts, including points, signals, and crossovers, for operational readiness   | -         | -         | -        | -         |
|                                                                                        | PC11. identify and report track-related anomalies or safety concerns                                        | -         | -         | -        | -         |
|                                                                                        | PC12. coordinate with the track maintenance team for timely issue resolution                                | -         | -         | -        | -         |
|                                                                                        | <i>Essential Equipment &amp; SCR Operations</i>                                                             | 1         | 1         | -        | 0.5       |
|                                                                                        | PC13. operate and troubleshoot essential SCR equipment, ensuring all systems are functional                 | -         | -         | -        | -         |
|                                                                                        | PC14. conduct periodic maintenance checks on SCR workstations and equipment                                 | -         | -         | -        | -         |
|                                                                                        | PC15. train station staff on the use of critical SCR equipment                                              | -         | -         | -        | -         |
|                                                                                        | <i>Business Rules &amp; Revenue Management</i>                                                              | 2         | 2         | -        | 0.5       |

|                                                                                                         |   |   |   |     |
|---------------------------------------------------------------------------------------------------------|---|---|---|-----|
| PC16. enforce adherence to business rules and revenue circulars                                         | - | - | - | -   |
| PC17. oversee the collection, reconciliation, and reporting of station revenue                          | - | - | - | -   |
| PC18. supervise lost-and-found item management as per standard protocols                                | - | - | - | -   |
| PC19. generate and submit accurate revenue reports, including periodical returns and balance sheets     | - | - | - | -   |
| <i>Public Complaint Handling</i>                                                                        | 1 | 1 | - | 0.5 |
| PC20. address public complaints efficiently and document resolutions                                    | - | - | - | -   |
| PC21. implement corrective actions to minimize recurring issues                                         | - | - | - | -   |
| PC22. maintain a database of complaint trends for continuous improvement                                | - | - | - | -   |
| <i>SOP Compliance</i>                                                                                   | 1 | 1 | - | 0.5 |
| PC23. ensure adherence to SOPs in all station operations                                                | - | - | - | -   |
| PC24. conduct regular reviews and updates of SOPs based on operational feedback                         | - | - | - | -   |
| <i>Station Documents &amp; Records</i>                                                                  | 1 | 1 | - | 0.5 |
| PC25. maintain station records, including safety forms, revenue documents, and defect logs              | - | - | - | -   |
| PC26. ensure timely and accurate online reporting of station documents and registers                    | - | - | - | -   |
| PC27. conduct audits to confirm the completeness and accuracy of records                                | - | - | - | -   |
| <i>Defect Recording &amp; Reporting</i>                                                                 | 1 | 1 | - | 0.5 |
| PC28. record operational defects promptly and escalate them to relevant departments                     | - | - | - | -   |
| PC29. track reported defects to ensure timely resolution                                                | - | - | - | -   |
| PC30. compile defect data for performance analysis and reporting                                        | - | - | - | -   |
| <i>Contract Management</i>                                                                              | 1 | 1 | - | 0.5 |
| PC31. supervise contracts related to ticketing, customer facilitation agents, parking, and housekeeping | - | - | - | -   |
| PC32. monitor contractor compliance with SLAs and escalate breaches appropriately                       | - | - | - | -   |
| PC33. review and update contract-related records periodically                                           | - | - | - | -   |
| <i>Earthing Rod Placement</i>                                                                           | 1 | 1 | - | 0.5 |
| PC34. place earthing rods safely and efficiently during maintenance or emergencies                      | - | - | - | -   |
| PC35. verify earthing rod placement before commencing related activities                                | - | - | - | -   |
| <i>Case Studies &amp; Lessons Learned</i>                                                               | 1 | 1 | - | 0.5 |
| PC36. analyze case studies related to station failures and implement lessons learned                    | - | - | - | -   |
| PC37. conduct team discussions on failure analysis to enhance station operations                        | - | - | - | -   |
| <i>Instructions (Station)</i>                                                                           | 1 | 1 | - | 0.5 |
| PC38. communicate station-specific instructions clearly to the team                                     | - | - | - | -   |
| PC39. monitor adherence to issued instructions and provide guidance as needed                           | - | - | - | -   |
| <i>Manual Point Operation</i>                                                                           | 1 | 1 | - | 0.5 |
| PC40. operate manual points during emergencies following standard procedures                            | - | - | - | -   |
| PC41. ensure proper communication with OCC during manual point operations                               | - | - | - | -   |
| <i>Escalator/Travelator Operations</i>                                                                  | 1 | 1 | - | 0.5 |
| PC42. operate escalators and travelators, including emergency start/stop mechanisms                     | - | - | - | -   |
| PC43. conduct regular safety checks on escalators/travelators                                           | - | - | - | -   |

|                                                                |                                                                                                                                                                  |           |           |          |           |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|----------|-----------|
|                                                                | PC44. train station staff on proper escalator and travelator usage and safety                                                                                    | -         | -         | -        | -         |
|                                                                | <i>Lift/Elevator Operations</i>                                                                                                                                  | 1         | 1         | -        | 0.5       |
|                                                                | PC45. operate lifts, including emergency rescue procedures, adhering to safety protocols                                                                         | -         | -         | -        | -         |
|                                                                | PC46. conduct periodic inspections to ensure lift functionality and safety                                                                                       | -         | -         | -        | -         |
|                                                                | PC47. train staff on lift operations and passenger rescue techniques                                                                                             | -         | -         | -        | -         |
|                                                                | <i>ECS/TVS/BMS Operations</i>                                                                                                                                    | 1         | 1         | -        | 0.5       |
|                                                                | PC48. operate Environmental Control Systems (ECS), Tunnel Ventilation Systems (TVS), and Building Management Systems (BMS) effectively                           | -         | -         | -        | -         |
|                                                                | PC49. utilize system features to maintain passenger safety and station comfort                                                                                   | -         | -         | -        | -         |
|                                                                | PC50. report malfunctions in ECS/TVS/BMS to the maintenance team promptly                                                                                        | -         | -         | -        | -         |
|                                                                | <i>Computer-Based Training (CBT)</i>                                                                                                                             | 1         | 1         | -        | 0.5       |
|                                                                | PC51. conduct computer-based training sessions for station management processes                                                                                  | -         | -         | -        | -         |
|                                                                | PC52. evaluate staff proficiency through CBT modules and provide feedback                                                                                        | -         | -         | -        | -         |
|                                                                | <b>Total Marks</b>                                                                                                                                               | <b>20</b> | <b>20</b> | <b>-</b> | <b>10</b> |
|                                                                | <b>Elective NOS 2:</b>                                                                                                                                           |           |           |          |           |
| <b>DMR/LSC/N0606: Supervise and troubleshoot rolling stock</b> | <i>Rolling Stock Systems</i>                                                                                                                                     | 4         | 4         | -        | 2         |
|                                                                | PC1. inspect rolling stock cab equipment and verify their functionality                                                                                          | -         | -         | -        | -         |
|                                                                | PC2. check and report the condition of internal and external rolling stock equipment, including the bogie, primary suspension, and couplers                      | -         | -         | -        | -         |
|                                                                | PC3. ensure proper functioning of safety-critical equipment during routine inspections                                                                           | -         | -         | -        | -         |
|                                                                | <i>Train Subsystems</i>                                                                                                                                          | 4         | 4         | -        | 2         |
|                                                                | PC4. monitor the performance of the Train Control Management System (TCMS)                                                                                       | -         | -         | -        | -         |
|                                                                | PC5. supervise current collection systems, propulsion systems, and auxiliary systems, including battery systems and train lighting                               | -         | -         | -        | -         |
|                                                                | PC6. coordinate with the maintenance team for troubleshooting HVAC systems, door systems, PA-PIS, CCTV, and passenger alarm devices                              | -         | -         | -        | -         |
|                                                                | PC7. verify operational readiness of the air supply and brake systems, ensuring correct functioning of motoring, braking, brake loops, and emergency brake loops | -         | -         | -        | -         |
|                                                                | <i>Operating and Troubleshooting Procedures</i>                                                                                                                  | 4         | 4         | -        | 2         |
|                                                                | PC8. follow established guidelines for operating rolling stock and troubleshooting common issues                                                                 | -         | -         | -        | -         |
|                                                                | PC9. respond to system malfunctions by implementing standard emergency and corrective actions                                                                    | -         | -         | -        | -         |
|                                                                | PC10. document all troubleshooting activities and escalate unresolved issues to higher technical authorities                                                     | -         | -         | -        | -         |
|                                                                | <i>Rolling Stock Practical Exposure</i>                                                                                                                          | 4         | 4         | -        | 2         |
|                                                                | PC11. train on rolling stock equipment to gain hands-on experience                                                                                               | -         | -         | -        | -         |
|                                                                | PC12. use diagnostic tools following safety procedures during maintenance tasks                                                                                  | -         | -         | -        | -         |
|                                                                | PC13. supervise the execution of practical tasks to ensure adherence to safety and operational standards                                                         | -         | -         | -        | -         |
|                                                                | <i>Simulator Training</i>                                                                                                                                        | 4         | 4         | -        | 2         |
|                                                                | PC14. familiarize with the cab, including TCMS and control systems, using simulators                                                                             | -         | -         | -        | -         |

|                                                                                                                                    |                                                                                                                   |           |           |          |           |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------|-----------|----------|-----------|
|                                                                                                                                    | PC15. simulate various train driving scenarios to enhance problem-solving skills and emergency response readiness | -         | -         | -        | -         |
|                                                                                                                                    | PC16. evaluate the performance of team members in handling simulated scenarios and provide constructive feedback  | -         | -         | -        | -         |
|                                                                                                                                    | <b>Total Marks</b>                                                                                                | <b>20</b> | <b>20</b> | <b>-</b> | <b>10</b> |
| <b>Elective NOS 2:</b><br><br><b>DMR/LSC/N0607: Supervise SOP train operations and practical tasks</b>                             | <i>Failure Analysis and Technical Reporting</i>                                                                   | 7         | 7         | -        | 3         |
|                                                                                                                                    | PC1. identify causes of train operation failures using diagnostic tools and data logs                             | -         | -         | -        | -         |
|                                                                                                                                    | PC2. categorize failures into mechanical, electrical, or operational domains                                      | -         | -         | -        | -         |
|                                                                                                                                    | PC3. draft comprehensive Failure Analysis Reports (FAR) and technical instructions                                | -         | -         | -        | -         |
|                                                                                                                                    | PC4. submit recommendations for corrective and preventive actions                                                 | -         | -         | -        | -         |
|                                                                                                                                    | PC5. maintain updated records of FARs and technical instructions for reference                                    | -         | -         | -        | -         |
|                                                                                                                                    | <i>Simulator-Based Communication and Troubleshooting</i>                                                          | 7         | 7         | -        | 3         |
|                                                                                                                                    | PC6. operate simulators to replicate train scenarios for troubleshooting and rescue drills                        | -         | -         | -        | -         |
|                                                                                                                                    | PC7. conduct communication drills with signaling and control teams                                                | -         | -         | -        | -         |
|                                                                                                                                    | PC8. identify and address random faults simulated in the Control-Based Trainer (CBT)                              | -         | -         | -        | -         |
|                                                                                                                                    | PC9. practice quick decision-making under simulated fault conditions                                              | -         | -         | -        | -         |
|                                                                                                                                    | PC10. execute mock rescue operations to test preparedness and adherence to protocols                              | -         | -         | -        | -         |
|                                                                                                                                    | PC11. coordinate with relevant teams during rescue simulation drills                                              | -         | -         | -        | -         |
|                                                                                                                                    | <i>Standard Operating Procedure (SOP) for Train Operations</i>                                                    | 6         | 6         | -        | 4         |
|                                                                                                                                    | PC12. supervise the implementation of SOPs during live and simulated operations                                   | -         | -         | -        | -         |
|                                                                                                                                    | PC13. monitor operational parameters to ensure compliance with safety and efficiency standards                    | -         | -         | -        | -         |
|                                                                                                                                    | PC14. conduct practical sessions for team members on SOPs and train operations                                    | -         | -         | -        | -         |
|                                                                                                                                    | PC15. provide feedback and evaluate the competency of team members in handling operational tasks                  | -         | -         | -        | -         |
|                                                                                                                                    | PC16. conduct periodic SOP compliance audits                                                                      | -         | -         | -        | -         |
|                                                                                                                                    | PC17. recommend updates to SOPs based on operational feedback and incident analysis                               | -         | -         | -        | -         |
|                                                                                                                                    | <b>Total Marks</b>                                                                                                | <b>20</b> | <b>20</b> | <b>-</b> | <b>10</b> |
| <b>Elective NOS 2:</b><br><br><b>DMR/LSC/N0608: Operate metro train on test track, mainline (non-revenue hours), and simulator</b> | <i>Test Track / Mainline (Non-Revenue Hours) Driving</i>                                                          | 7         | 7         | -        | 3         |
|                                                                                                                                    | PC1. conduct driving operations on test tracks and mainline during non-revenue hours                              | -         | -         | -        | -         |
|                                                                                                                                    | PC2. inspect the train and track conditions before initiating the drive                                           | -         | -         | -        | -         |
|                                                                                                                                    | PC3. monitor speed, signals, and communication systems during operation                                           | -         | -         | -        | -         |
|                                                                                                                                    | PC4. coordinate with the Operations Control Centre (OCC) for real-time instructions and incident reporting        | -         | -         | -        | -         |
|                                                                                                                                    | PC5. ensure compliance with safety protocols during non-revenue operations                                        | -         | -         | -        | -         |
|                                                                                                                                    | PC6. document driving logs, safety checks, and incidents encountered                                              | -         | -         | -        | -         |
|                                                                                                                                    | <i>Simulator Driving</i>                                                                                          | 7         | 7         | -        | 3         |
|                                                                                                                                    | PC7. practice and refine driving skills using the simulator                                                       | -         | -         | -        | -         |

|  |                                                                                                    |            |            |          |           |
|--|----------------------------------------------------------------------------------------------------|------------|------------|----------|-----------|
|  | PC8. operate the simulator to simulate real-life driving conditions, including emergencies         | -          | -          | -        | -         |
|  | PC9. analyze and interpret feedback from simulator sessions to identify areas of improvement       | -          | -          | -        | -         |
|  | PC10. train subordinate staff on simulator operations and assess their driving competencies        | -          | -          | -        | -         |
|  | PC11. maintain the simulator logbook and coordinate with the training department for updates       | -          | -          | -        | -         |
|  | <i>Cab Exposure (On Mainline)</i>                                                                  | 6          | 6          | -        | 4         |
|  | PC12. conduct supervised cab exposure sessions for new drivers or trainees on the mainline         | -          | -          | -        | -         |
|  | PC13. evaluate driver competencies during exposure and provide corrective instructions             | -          | -          | -        | -         |
|  | PC14. familiarize with signaling systems, track layouts, and operational scenarios on the mainline | -          | -          | -        | -         |
|  | PC15. ensure adherence to operational guidelines and safety regulations during cab exposure        | -          | -          | -        | -         |
|  | PC16. report performance and observations to the training department or higher management          | -          | -          | -        | -         |
|  | <b>Total Marks</b>                                                                                 | <b>20</b>  | <b>20</b>  | <b>-</b> | <b>10</b> |
|  | <b>Grand Total</b>                                                                                 | <b>200</b> | <b>210</b> | <b>-</b> | <b>90</b> |

## Annexure 7: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

### 1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SIDH
- The batch allocation Matrix prepared for each month based on previous months' performance of AAs, which determines the quantum of Assessment which can be allocated to each AA for a month
- Post allocation of assessment, Assessment agencies send the assessment confirmation to AB
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- AB monitors the assessment process.

### 2. Testing Environment:

- A combination of Theory and practical/demonstration test is deployed to assess knowledge and Skill respectively of Learners.
- Assessment is conducted at Training center in in-person/offline mode
- For Skill assessment, environment is simulated to create a realistic Working Environment that should replicate the key features of the workplace. In job roles, where it is difficult to replicate the same, the OJT assessment is implemented.
- During the practical task, trainees are assessed on their workmanship, quality of finished product, time management, etc., based on the performance criteria (PC), knowledge and understanding and their professional and soft skills as specified in the qualification pack.
- Knowledge assessment is done through closed ended questions up to level 4 and from level 5 onwards, it is mixture of open ended and closed ended questions

### 3. Assessment Quality Assurance levels/Framework

- Assessment criteria is developed for each QP which acts as a guide for developing question set /banks
- Sample questions aligned with Assessment criteria for each QP are developed by AB and validated by industry
- Taking reference of Assessment criteria and Sample Questions, AAs create the question bank which is further validated by AB
- Questions are mapped to the specified assessment criteria
- It is mandatory that Assessor and Trainer must be ToA certified & ToT Certified respectively
- Continuous Monitoring through virtual and In-person mode are conducted to ensure the assessment is conducted as per stipulated process
- Process and Technical audit of assessment batches by quality team are conducted to avoid the errors in assessment process
- A well -defined comprehensive framework of NON-COMPLIANCE MATRIX is defined and implemented to identify the non-compliance made by assessor and AA and punitive actions are taken correspondingly.
- The capacity building sessions are conducted regularly for assessors and assessment agencies to update them about best practices in assessment

### 4. Types of evidence or evidence-gathering protocol:

- Post Assessment, the evidences are uploaded by Assessor to assessment agency and further assessment agency to AB as per stipulated TAT
- Evidences are broadly the photographic and video graphic in nature
- Assessment agencies upload the evidence on SIDH and detailed evidence on AB digital platform (ZoHO)
- Evidences are; NOS wise-Geotagged photographs and videos of Theory Test &Practical Tasks, Attendance sheet, result summary sheet, group photographs.

### 5. Method of verification or validation:

- The process and technical audit of assessment batches are done by AB

- Attendance of each candidate is verified and it is ensured that only those candidates are assessed by assessors who are meeting the stipulated minimum percentage of attendance
- The result of each candidate is verified, it is verified that that result on SIDH are matching with respect to summary sheet submitted by AAs
- Under detailed technical audit for sample of batches, the knowledge and skill assessment results for each candidate is checked in technical aspect.
- All the evidences of batches are preserved on server of AB digital platform

**On the Job Training:**

On job training (OJT), candidates undergo training and leaning at actual workplace for a fixed period of time and a certain weightage of assessment is allocated out of total skill weightage of Qualification Pack for undergoing OJT as stipulated by DMRA. This OJT score and assessors' end point score are combined to arrive at final Marking/grading of trainees' skill test. The OJT score is determined by Supervisor of company under which candidates undergo on job training.



## Annexure 8: Acronym and Glossary

## Acronym

| Acronym | Description                                          |
|---------|------------------------------------------------------|
| AA      | Assessment Agency                                    |
| AB      | Awarding Body                                        |
| ISCO    | International Standard Classification of Occupations |
| NCO     | National Classification of Occupations               |
| NCrF    | National Credit Framework                            |
| NOS     | National Occupational Standard(s)                    |
| NQR     | National Qualification Register                      |
| NSQF    | National Skills Qualifications Framework             |
| OJT     | On the Job Training                                  |
| DMRA    | Delhi Metro Rail Academy                             |
| MR      | Metro Railway                                        |
| PSI     | Power Supply Installation                            |
| SCADA   | Supervisory Control and Data Acquisition             |
| OHE     | Overhead Electrification                             |
| DERC    | Delhi Electricity Regulatory Commission              |
| HERC    | Haryana Electricity Regulatory Commission            |
| UPPCL   | Uttar Pradesh Power Corporation Limited              |
| RSS     | Remote Sub-Station                                   |
| PTW     | Permit to Work                                       |
| TPC     | Traction Power Controller                            |
| OCC     | Operations Control Center                            |
| CBs     | Circuit Breakers                                     |
| CT      | Current Transformer                                  |
| PT      | Potential Transformer                                |
| LA      | Lightning Arrestor                                   |
| GIS     | Gas Insulated Switchgear                             |
| BDV     | Breakdown Voltage                                    |
| DGA     | Dissolved Gas Analysis                               |
| SAS     | Substation Automation System                         |
| LVS     | Low Voltage Switchgear                               |
| ROCS    | Railway Overhead Catenary System                     |
| ATD     | Auto Tensioning Device                               |
| DPR     | Daily Progress Report                                |
| SHPK    | Sub Head Post Kiln                                   |
| CMV     | Control and Monitoring Voltage                       |
| OMV     | Operating and Monitoring Voltage                     |
| SIDH    | Skill India Digital Hub                              |

## Glossary

| Term                                         | Description                                                                                                                                                                                                                            |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>National Occupational Standards (NOS)</b> | NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.                                               |
| <b>Qualification</b>                         | A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards                                                       |
| <b>Qualification File</b>                    | A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification. |
| <b>Sector</b>                                | A grouping of professional activities on the basis of their main economic function, product, service or technology.                                                                                                                    |
| <b>Long Term Training</b>                    | Long-term skilling means any vocational training program undertaken for a year and above. <a href="https://ncvet.gov.in/sites/default/files/NCVET.pdf">https://ncvet.gov.in/sites/default/files/NCVET.pdf</a>                          |