

**RAILTEL CORPORATION OF INDIA LIMITED**  
**(A Govt. of India Undertaking) (Ministry of Railways)**

**TENDER DOCUMENT**

**FOR**

**“PROCUREMENT OF SPLICING MACHINE, CABLE ROUTE TRACER ,SDH Analyzer, 2MB PCM Mux (E1) TESTER, TRANSMISSION MEASURING SET ,OPTICAL POWER METER , OPTICAL LASER SOURCE, OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) & Mini OTDR”**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/1-9 (09Tenders)**

**Tender Copy No.\_\_\_\_\_**

**Sold to: \_\_\_\_\_**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# **INDEX SHEET**

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## TENDER NOTICE

**No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/1-9 (09Tenders) Date: 13.10.2016**

RailTel Corporation of India Ltd.(RailTel), Mahalaxmi Railway Microwave Compound, Senapati Bapat Marg, Mahalaxmi, Mumbai – 400013, invites sealed Open Tender from the OEM or their official authorized vendors “ **PROCUREMENT OF SPLICING MACHINE, CABLE ROUTE TRACER ,SDH Analyzer, 2MB PCM MUX (E1) Analyzer, TRANSMISSION MEASURING SET ,OPTICAL POWER METER , OPTICAL LASER SOURCE, OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) & Mini OTDR ”**

| <b>Tender No.</b> | <b>Subject</b>   | <b>Estimated Tender Value (Rs.)</b> | <b>Earnest Money (Rs.)</b> |
|-------------------|--|-------------------------------------|----------------------------|
| 24/1              | Procurement of Splicing machine.                               | 40,98,870                           | 81980                      |
| 24/2              | Procurement of Optical Time Domain Reflectometers (OTDR)       | 26,19,897                           | 52400                      |
| 24/3              | Procurement of Cable Route Tracer.                             | 4,06,964                            | 8140                       |
| 24/4              | Procurement of Optical Power Meter                             | 76,401                              | 1530                       |
| 24/5              | Procurement of Optical Laser Source                            | 1,88,000                            | 3760                       |
| 24/6              | Procurement of Mini OTDR (Optical Time Domain Reflectometers ) | 3,32,186                            | 6650                       |
| 24/7              | Procurement of Transmission measuring Set                      | 48755                               | 980                        |
| 24/8              | Procurement of SDH analyzer                                    | 2347619                             | 46960                      |
| 24/9              | Procurement of PCM Mux (E1) analyzer                           | 12,97,168                           | 25950                      |

NOTE: 1.The Tenderer may quote for one or more Tenders as given above

- The firm registered with National Small Industries Corporation (NSIC) under its Single point registration scheme or registered as Micro, Small and Medium Enterprises under MSMED Act 2006 with District Industries Centres or Khadi & Village Industries Commission or Khadi & Village Industries Board or Coir Board or Directorate of Handicrafts & Handloom or any other body specified by Ministry of Micro, Small & Medium Enterprise will be exempted from the payment of cost of tender document provided they are registered for the same scope of work as NIT. The documents submitted by the firm shall be duly certified/attested. However, postage charges of Rs. 500/- would have to be paid by them, in case they need tender document by post.

Other Details of tender as per the following.

|    |  |   |
|----|--|---|
| a) | Issue date Sale of Tender Documents  | <b>From 17.10.2016</b>  |
| b) | Closing of sale of Tender documents  | <b>18.11.2016</b> up to 12.00 Hrs.  |
| c) | Receipt of sealed Tender documents.  | <b>18.11.2016</b> up to 15.00 Hrs.  |
| d) | Opening of sealed Tender documents.  | <b>18.11.2016</b> at 15.30 Hrs.   |
| e) | Validity of offer  | <b>90</b> days from the date of opening of tender.  |
| f) | Delivery period  | <b>30</b> days from the date of issue of LOA of tender.   |
| g) | Address for availability of tender document  | Executive Director,<br>RailTel Corporation of India Ltd.,<br>Western Railway Microwave Complex,<br>Senapati Bapat Marg, Mahalaxmi,<br>Mumbai - 400 013. |
| h) | Web address for availability of tender document  | <a href="http://www.railtelindia.com">www.railtelindia.com</a>  |
| i) | Cost of Tender document by hand / Down loaded from web site.   | <b>Rs. 5250</b> /- (Including VAT).   |
| j) | Cost of Tender document if required by post  | <b>Rs. 5750/-</b> (Including VAT).  |
| k) | The offer shall be inclusive of all taxes .At the time of submission of their bills TIN No., PAN No. shall be mentioned. |   |
| l) | Payment will be made through RTGS by RailTel.  |   |

The offers shall be opened on above said date in the presence of those bidders who choose to be present. If the above said date happens to be a holiday the same shall be done on the next working day.

The Bid have to be sent at the following address – Office of Executive Director, RailTel Corporation of India Limited, Western Railway Microwave Complex, Opposite Ambika Mills, Senapati Bapat Marg, Mahalaxmi (West), Mumbai-400013. The bids will be opened at the above said address.

**General Manager (Projects)**  
**RailTel Corporation of India Limited, Mumbai**

## निविदा सूचना

सं. रेलटेल/निविदा/ओटी/डब्ल्यूआर/ ओएफसी उपकरण/ 2016-17/24/1-9 (09 निविदा) दिनांक : 13.10.2016

रेलटेल कारपोरेशन ऑफ इंडिया लि , महालक्ष्मी रेलवे माइक्रोवेव कंपाउंड, सेनापति बापट मार्ग, महालक्ष्मी - 400,013 द्वारा मूल उपकरण निर्माताओं और उनके द्वारा अधीकृत विक्रेता से मुहरबंद खुली निविदा आमंत्रित की जाती हैं :

स्पलाइसिंग मशीन्स , केबल रूट ट्रेसर, एस डी एच एनालाइजर, 2MB पी सी एम मक्स (E1) टेस्टर, ट्रांसमिशन मेजरिंग सेट, ऑप्टिकल पॉवर मीटर , ऑप्टिकल लेसर सौर्स ऑप्टिकल टाइम डोमेन रेफ्लेक्टोमीटर्स (OTDR) & मिनी ओ टी डी आर की एस ओ आर में विस्तृत विनिर्देश के अनुसार खरीद .

| निविदा सं. | विषय   | अनुमानित निविदा लागत (रुपए) | बयाना राशि (रुपए) |
|------------|--|-----------------------------|-------------------|
| 24/1       | स्पलाइसिंग मशीन्स की खरीद                                      | 40,98,870                   | 81980             |
| 24/2       | ऑप्टिकल टाइम डोमेन रेफ्लेक्टोमीटर्स ( OTDR) की खरीद            | 26,19,897                   | 52400             |
| 24/3       | केबल रूट ट्रेसर की खरीद  | 4,06,964                    | 8140              |
| 24/4       | ऑप्टिकल पॉवर मीटर की खरीद                                      | 76,401                      | 1530              |
| 24/5       | ऑप्टिकल लेसर सौर्स की खरीद                                     | 1,88,000                    | 3760              |
| 24/6       | मिनी ओ टी डी आर (ऑप्टिकल टाइम डोमेन रेफ्लेक्टोमीटर्स ) की खरीद | 3,32,186                    | 6650              |
| 24/7       | ट्रांसमिशन मेजरिंग सेट की खरीद                                 | 48,755                      | 980               |
| 24/8       | एस डी एच एनालाइजर की खरीद                                      | 23,47,619                   | 46960             |
| 24/9       | 2MB पी सी एम मक्स (E1) टेस्टर की खरीद                          | 12,97,168                   | 25950             |

नोट : 1. निविदाकार उपरोक्त निविदा में से एक या एक से ज्यादा निविदा में भाग ले सकते हैं .

2. यदि फर्म, एकल बिंदु पंजीकरण योजना के अंतर्गत राष्ट्रीय लघु उद्योग निगम के साथ या सूक्ष्म, लघु, मध्यम उद्यम के रूप में एमएसएमईडी अधिनियम के तहत 2006 जिला उद्योग केन्द्रों या खादी और ग्रामोद्योग आयोग या खादी और ग्रामोद्योग बोर्ड या कॉयर बोर्ड या हस्तशिल्प एवं हथकरघा निदेशालय या सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय द्वारा निर्दिष्ट किसी अन्य संस्था द्वारा पंजीकृत है तो निविदाकार को निविदा दस्तावेज लागत से छूट दी गई है बशर्ते कि वे निविदा सूचना में समान रूप के स्कोप ऑफ़ वर्क के लिए पंजीकृत हैं . फर्म द्वारा प्रस्तुत दस्तावेज प्रमाणित/ सत्यापित होने चाहिए । यदि निविदा दस्तावेज डाक से आपूर्ति चाहते हैं तो डाक चार्ज के 500/- रुपये का भुगतान उनको करना होगा। निविदा दस्तावेज में उल्लेखित पात्रता मानदंडों की पूर्ति, निविदाकर्ता के प्रस्ताव पर विचार करने के पूर्व अपेक्षित है।

निविदा से सम्बंधित अन्य विवरण निम्नलिखित है:

|    |  |  |
|----|--|--|
| a) | निविदा दस्तावेज की बिक्री प्रारम्भ होने की तारीख   | 17.10.2016   |
| b) | निविदा दस्तावेज की बिक्री बंद होने की तारीख एवं समय  | दोपहर 12.00 बजे तक दिनांक 18.11.2016   |
| c) | निविदा जमा करने की अंतिम तारीख एवं समय   | दोपहर 15.00 बजे तक दिनांक 18.11.2016   |
| d) | निविदा खुलने की तारीख एवं समय  | दोपहर 15.30 बजे तक दिनांक 18.11.2016   |
| e) | प्रस्ताव की वैधता  | 90 दिन निविदा खोलने की तारीख से  |
| f) | कार्य के पूरा होने की अवधि   | निविदा की एलओए जारी होने की तारीख से 30 दिन।   |
| g) | निविदा दस्तावेज की उपलब्धता के लिए पता   | कार्यपालक निदेशक, पश्चिमी क्षेत्र<br>रेलटेल कारपोरेशन ऑफ इंडिया लिमिटेड<br>पश्चिम रेलवे माइक्रोवेव परिसर,<br>सेनापति बापट मार्ग, महालक्ष्मी (पश्चिम),<br>मुंबई - 400 013 |
| h) | निविदा दस्तावेज की उपलब्धता के लिए वेबसाइट का पता  | <a href="http://www.railtelindia.com">www.railtelindia.com</a>   |
| i) | निविदा दस्तावेज की कीमत रुपए में (वैट सहित) (बाय हेंड)   | 5250/- निविदा दस्तावेज के लिए  |
| j) | निविदा दस्तावेज की कीमत रुपए में (वैट सहित) (ड्राक द्वारा)   | 5750/- निविदा दस्तावेज के लिए  |
| k) | प्रस्ताव कर सहित होंगे लेकिन निविदाकार को और निविदाकार को खाता बिल प्रस्तुत करने के समय उनके टिन नंबर, पैन नंबर प्रस्तुत करने होंगे। |  |
| l) | भुगतान रेलटेल द्वारा आरटीजीएस के माध्यम से किया जाएगा।   |  |

निविदा, निविदाकार स्वयं / उनके प्रतिनिधि जो भी उपस्थित होना चाहते हैं, उनके मौजूदगी में, ऊपर बताई गई तारीख पर खोली जाएगी। यदि बताई गई तारीख को अवकाश होता है तो निविदा / ऑफर अगले कार्य दिवस पर खोली जाएगी।

निविदा / निविदाये / बिड निम्न पते पर भेजना है : कार्यालय- कार्यपालक निदेशक, रेलटेल कारपोरेशन ऑफ इंडिया लिमिटेड, पश्चिम रेलवे माइक्रोवेव परिसर, अंबिका मिल्स के सामने, सेनापति बापट मार्ग, महालक्ष्मी (पश्चिम), मुंबई 400013. निविदा ऊपर बताये गए पते पर खोली जाएगी।

महाप्रबंधक/परियोजना,  
रेलटेल कारपोरेशन ऑफ इंडिया लिमिटेड,  
मुंबई

## Chapter I

### OFFER LETTER

To,  
RailTel Corporation of India Limited,  
Mahalaxmi Railway microwave compound,  
Senapati Bapat Marg, Mahalaxmi,  
Mumbai – 400 013.

I/We \_\_\_\_\_ have read the various conditions to tender attached here to and hereby agree to ABIDE BY THE SAID CONDITIONS. I/We also agree to keep this tender open for acceptance for a period of **90 days** from the date fixed for opening the same and in default thereof, I/We will be liable for forfeiture of my/our Earnest Money. I/We offer to do the supply of OFC instruments /Meters as per the Schedule of Requirement under **Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/1-9** to **RailTel Corporation of India Limited** at the rates quoted in the attached Schedules and hereby bind myself/ourselves to complete the supply of material as per the Schedule of Requirement within **30 days** from the date of issue of Purchase Order. I/We also hereby agree to abide by the Various Conditions of Contract and to carry out the work according to the Specifications for materials and works laid down by RailTel for the present contract.

2. A sum of \_\_\_\_\_ Rs. \_\_\_\_\_ only as an Account Payee Demand Draft drawn in favor of RailTel Corporation Of India Ltd. No.----- dt. ----- issued by ----- is herewith forwarded as “Earnest Money”. The full value of Earnest Money shall stand forfeited without prejudice to any other rights or remedies if, I/We withdraw or modify the offer within validity period or do not deposit the security deposit ( in form of Performance Bank Guarantee) within 15 days after receipt of orders to that effect.

**SIGNATURE OF SUPPLIER (S)**

**Date**

**SUPPLIER (S) ADDRESS**

**SIGNATURE OF WITNESSES**

1.

2.

## **Chapter II** **OFFER SHEET - I**

### **SCHEDULE OF REQUIREMENTS (PRICE SCHEDULE)**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/1**

**Name of Supply: "Procurement of Splicing machines as per the specification detailed at Schedule of Requirement."**

| Sr. No | Item Description   | Unit | Qty . | Unit Basic Price | Packing & Forwarding Charges | ED @ ____% | Sales Tax/CST/VAT/LST @ ____% | Freight & Insurance charges | Unit Cost CIP destination |          | Total cost CIP destination |          |
|--------|--|------|-------|------------------|------------------------------|------------|-------------------------------|-----------------------------|---------------------------|----------|----------------------------|----------|
|        |  |      |       |                  |                              |            |                               |                             | In figures                | In words | In figures                 | In words |
| 1      | Supply of fully automated with wind protector fusion splicing machine as per specification attached at Annexure-I. | Nos. | 09    |                  |                              |            |                               |                             |                           |          |                            |          |
|        | Quote Make and Model No. offered by Tenderer   |      |       |                  |                              |            |                               |                             |                           |          |                            |          |

**NOTE:** Only OEM or their official authorized vendors are allowed to participate confirming that they are complying the Specification details

given in Annexure. Incorrect or misleading compliance/information will be dealt seriously.

The authorized vendors shall submit a letter from OEM that they are their authorized vendor to supply the equipment.

| <b>Note for Guidance:</b> |  |
|---------------------------|--|
| a                         | [i] Unit cost quoted against SOR above should be inclusive of all duties, taxes, freight etc.  |
|                           | [ii] Tax break up to be submitted by bidder in Form No. 16 annexed with Tender Document.   |
|                           | [iii] The offered make and model must meet every specification.  |
| b                         | It is certified that I/We have carefully gone through the specifications, special conditions etc. shown in the Tender Document.  |
| c                         | I/We undertake to keep this offer valid for a period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period. |

**Signature of Tenderer with seal**



## **OFFER SHEET – II**

### **SCHEDULE OF REQUIREMENTS (PRICE SCHEDULE)**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/02/2**

**Name of Supply:** “Procurement of Optical Time Domain Reflectometer (OTDR) as per the specification detailed at Schedule of Requirement.”

| Sr. No | Item Description   | Unit | Qty . | Unit Basic Price | Packing & Forwarding Charges | ED @ ____% | Sales Tax/CST/V AT/LST @ ____% | Freight & Insurance charges | Unit Cost CIP destination |           | Total cost CIP destination |           |
|--------|--|------|-------|------------------|------------------------------|------------|--------------------------------|-----------------------------|---------------------------|-----------|----------------------------|-----------|
|        |  |      |       |                  |                              |            |                                |                             | In figure s               | In word s | In figure s                | In word s |
| 1      | Supply of Optical Time Domain Reflectometer (OTDR) as per specification attached at Annexure-II. | Nos. | 07    |                  |                              |            |                                |                             |                           |           |                            |           |
|        | Quote Make and Model No. offered by Tenderer   |      |       |                  |                              |            |                                |                             |                           |           |                            |           |

**NOTE:** Only OEM or their official authorized vendors are allowed to participate confirming that they are complying the Specification details

given in Annexure. Incorrect or misleading compliance/information will be dealt seriously.

The authorized vendors shall submit a letter from OEM that they are their authorized vendor to supply the equipment.

| <b>Note for Guidance:</b> |  |
|---------------------------|--|
| a                         | [i] Unit cost quoted against SOR above should be inclusive of all duties, taxes, freight etc.  |
|                           | [ii] Tax break up to be submitted by bidder in Form No. 16 annexed with Tender Document.   |
|                           | [iii] The offered make and model must meet every specification.  |
| b                         | It is certified that I/We have carefully gone through the specifications, special conditions etc. shown in the Tender Document.  |
| c                         | I/We undertake to keep this offer valid for a period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period. |

**Signature of Tenderer with seal**

## **OFFER SHEET - III**

### **SCHEDULE OF REQUIREMENTS (PRICE SCHEDULE)**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/02/3**

**Name of Supply: “Procurement of Cable Route Tracer as per the specification detailed at Schedule of Requirement.”**

| Sr. No                                       | Item Description  | Unit | Qty . | Unit Basic Price | Packing & Forwarding Charges | ED @ ____% | Sales Tax/CST/VAT/LST @ ____% | Freight & Insurance charges | Unit Cost CIP destination |          | Total cost CIP destination |          |
|--|---|------|-------|------------------|------------------------------|------------|-------------------------------|-----------------------------|---------------------------|----------|----------------------------|----------|
|  |   |      |       |                  |                              |            |                               |                             | In figures                | In words | In figures                 | In words |
| 1  | Supply of Cable Route Tracer as per specification attached at Annexure-III. | Nos. | 04    |                  |                              |            |                               |                             |                           |          |                            |          |
| Quote Make and Model No. offered by Tenderer |   |      |       |                  |                              |            |                               |                             |                           |          |                            |          |

**NOTE:** Only OEM or their official authorized vendors are allowed to participate confirming that they are complying the Specification details

given in Annexure. Incorrect or misleading compliance/information will be dealt seriously.

The authorized vendors shall submit a letter from OEM that they are their authorized vendor to supply the equipment.

**Note for Guidance:**

|   |  |
|---|--|
| a | [i] Unit cost quoted against SOR above should be inclusive of all duties, taxes, freight etc.  |
|   | [ii] Tax break up to be submitted by bidder in Form No. 16 annexed with Tender Document.   |
|   | [iii] The offered make and model must meet every specification.  |
| b | It is certified that I/We have carefully gone through the specifications, special conditions etc. shown in the Tender Document.  |
| c | I/We undertake to keep this offer valid for a period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period. |

**Signature of Tenderer with seal**

## **OFFER SHEET - IV**

### **SCHEDULE OF REQUIREMENTS (PRICE SCHEDULE)**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/4**

**Name of Supply: "Procurement of Optical Power Meter as per the specification detailed at Schedule of Requirement."**

| Sr. No | Item Description   | Unit | Qty . | Unit Basic Price | Packing & Forwarding Charges | ED @ ____% | Sales Tax/CST/VAT/LST @ ____% | Freight & Insurance charges | Unit Cost CIP destination |          | Total cost CIP destination |          |
|--------|--|------|-------|------------------|------------------------------|------------|-------------------------------|-----------------------------|---------------------------|----------|----------------------------|----------|
|        |  |      |       |                  |                              |            |                               |                             | In figures                | In words | In figures                 | In words |
| 1      | Supply of Optical Power Meter as per specification attached at Annexure-IV | Nos. | 03    |                  |                              |            |                               |                             |                           |          |                            |          |
|        | Quote Make and Model No. offered by Tenderer                               |      |       |                  |                              |            |                               |                             |                           |          |                            |          |

**NOTE:** Only OEM or their official authorized vendors are allowed to participate confirming that they are complying the Specification details given in Annexure. Incorrect or misleading compliance/information will be dealt seriously.

The authorized vendors shall submit a letter from OEM that they are their authorized vendor to supply the equipment.

| <b>Note for Guidance:</b> |  |
|---------------------------|--|
| a                         | [i] Unit cost quoted against SOR above should be inclusive of all duties, taxes, freight etc.  |
|                           | [ii] Tax break up to be submitted by bidder in Form No. 16 annexed with Tender Document.   |
|                           | [iii] The offered make and model must meet every specification.  |
| b                         | It is certified that I/We have carefully gone through the specifications, special conditions etc. shown in the Tender Document.  |
| c                         | I/We undertake to keep this offer valid for a period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period. |

**Signature of Tenderer with seal**

## **OFFER SHEET - V**

### **SCHEDULE OF REQUIREMENTS (PRICE SCHEDULE)**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/5**

**Name of Supply: “Procurement of Optical Laser Source as per the specification detailed at Schedule of Requirement.”**

| Sr. No | Item Description  | Unit | Qty . | Unit Basic Price | Packing & Forwarding Charges | ED @ ____% | Sales Tax/CST/V AT/LST @ ____% | Freight & Insurance charges | Unit Cost CIP destination |          | Total cost CIP destination |          |
|--------|---|------|-------|------------------|------------------------------|------------|--------------------------------|-----------------------------|---------------------------|----------|----------------------------|----------|
|        |   |      |       |                  |                              |            |                                |                             | In figures                | In words | In figures                 | In words |
| 1      | Supply of Optical Laser Source as per specification attached at Annexure-V. | Nos. | 02    |                  |                              |            |                                |                             |                           |          |                            |          |
|        | Quote Make and Model No. offered by Tenderer                                |      |       |                  |                              |            |                                |                             |                           |          |                            |          |

**NOTE:** Only OEM or their official authorized vendors are allowed to participate confirming that they are complying the Specification details given in Annexure. Incorrect or misleading compliance/information will be dealt seriously.

The authorized vendors shall submit a letter from OEM that they are their authorized vendor to supply the equipment.

| <b>Note for Guidance:</b> |  |
|---------------------------|--|
| a                         | [i] Unit cost quoted against SOR above should be inclusive of all duties, taxes, freight etc.  |
|                           | [ii] Tax break up to be submitted by bidder in Form No. 16 annexed with Tender Document.   |
|                           | [iii] The offered make and model must meet every specification.  |
| b                         | It is certified that I/We have carefully gone through the specifications, special conditions etc. shown in the Tender Document.  |
| c                         | I/We undertake to keep this offer valid for a period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period. |

**Signature of Tenderer with seal**

## **OFFER SHEET – VI**

### **SCHEDULE OF REQUIREMENTS (PRICE SCHEDULE)**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/6**

**Name of Supply: “Procurement of Mini OTDR (Optical Time Domain Reflectometers) as per the specification detailed at Schedule of Requirement.”**

| Sr. No | Item Description   | Unit | Qty . | Unit Basic Price | Packing & Forwarding Charges | ED @ ____% | Sales Tax/CST/VAT/LST @ ____% | Freight & Insurance charges | Unit Cost CIP destination |          | Total cost CIP destination |          |
|--------|--|------|-------|------------------|------------------------------|------------|-------------------------------|-----------------------------|---------------------------|----------|----------------------------|----------|
|        |  |      |       |                  |                              |            |                               |                             | In figures                | In words | In figures                 | In words |
| 1      | Supply of Mini OTDR (Optical Time Domain Reflectometers) as per specification attached at Annexure-VI. | Nos. | 01    |                  |                              |            |                               |                             |                           |          |                            |          |
|        | Quote Make and Model No. offered by Tenderer   |      |       |                  |                              |            |                               |                             |                           |          |                            |          |

**NOTE:** Only OEM or their official authorized vendors are allowed to participate confirming that they are complying the Specification details given in Annexure. Incorrect or misleading compliance/information will be dealt seriously.

The authorized vendors shall submit a letter from OEM that they are their authorized vendor to supply the equipment.

| <b>Note for Guidance:</b> |  |
|---------------------------|--|
| a                         | [i] Unit cost quoted against SOR above should be inclusive of all duties, taxes, freight etc.  |
|                           | [ii] Tax break up to be submitted by bidder in Form No. 16 annexed with Tender Document.   |
|                           | [iii] The offered make and model must meet every specification.  |
| b                         | It is certified that I/We have carefully gone through the specifications, special conditions etc. shown in the Tender Document.  |
| c                         | I/We undertake to keep this offer valid for a period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period. |

**Signature of Tenderer with seal**

## **OFFER SHEET – VII**

### **SCHEDULE OF REQUIREMENTS (PRICE SCHEDULE)**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/7**

**Name of Supply: “Procurement of Transmission Measuring Set as per the specification detailed at Schedule of Requirement.”**

| Sr. No | Item Description  | Unit | Qty . | Unit Basic Price | Packing & Forwarding Charges | ED @ ____% | Sales Tax/CST/VAT/LST @ ____% | Freight & Insurance charges | Unit Cost CIP destination |          | Total cost CIP destination |          |
|--------|---|------|-------|------------------|------------------------------|------------|-------------------------------|-----------------------------|---------------------------|----------|----------------------------|----------|
|        |   |      |       |                  |                              |            |                               |                             | In figures                | In words | In figures                 | In words |
| 1      | Supply of Transmission Measuring Set as per specification attached at Annexure-VII. | Nos. | 02    |                  |                              |            |                               |                             |                           |          |                            |          |
|        | Quote Make and Model No. offered by Tenderer  |      |       |                  |                              |            |                               |                             |                           |          |                            |          |

**NOTE:** Only OEM or their official authorized vendors are allowed to participate confirming that they are complying the Specification details given in Annexure. Incorrect or misleading compliance/information will be dealt seriously.

The authorized vendors shall submit a letter from OEM that they are their authorized vendor to supply the equipment.

| <b>Note for Guidance:</b> |  |
|---------------------------|--|
| a                         | [i] Unit cost quoted against SOR above should be inclusive of all duties, taxes, freight etc.  |
|                           | [ii] Tax break up to be submitted by bidder in Form No. 16 annexed with Tender Document.   |
|                           | [iii] The offered make and model must meet every specification.  |
| b                         | It is certified that I/We have carefully gone through the specifications, special conditions etc. shown in the Tender Document.  |
| c                         | I/We undertake to keep this offer valid for a period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period. |

**Signature of Tenderer with seal**

## **OFFER SHEET - VIII**

### **SCHEDULE OF REQUIREMENTS (PRICE SCHEDULE)**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/8**

**Name of Supply: "Procurement of SDH Analyzer as per the specification detailed at Schedule of Requirement."**

| Sr. No | Item Description   | Unit | Qty . | Unit Basic Price | Packing & Forwarding Charges | ED @ ____% | Sales Tax/CST/VAT/LST @ ____% | Freight & Insurance charges | Unit Cost CIP destination |          | Total cost CIP destination |          |
|--------|--|------|-------|------------------|------------------------------|------------|-------------------------------|-----------------------------|---------------------------|----------|----------------------------|----------|
|        |  |      |       |                  |                              |            |                               |                             | In figures                | In words | In figures                 | In words |
| 1      | Supply of SDH Analyzer as per specification attached at Annexure-VIII. | Nos. | 03    |                  |                              |            |                               |                             |                           |          |                            |          |
|        | Quote Make and Model No. offered by Tenderer                           |      |       |                  |                              |            |                               |                             |                           |          |                            |          |

**NOTE:** Only OEM or their official authorized vendors are allowed to participate confirming that they are complying the Specification details given in Annexure. Incorrect or misleading compliance/information will be dealt seriously.

The authorized vendors shall submit a letter from OEM that they are their authorized vendor to supply the equipment.

| <b>Note for Guidance:</b> |  |
|---------------------------|--|
| a                         | [i] Unit cost quoted against SOR above should be inclusive of all duties, taxes, freight etc.  |
|                           | [ii] Tax break up to be submitted by bidder in Form No. 16 annexed with Tender Document.   |
|                           | [iii] The offered make and model must meet every specification.  |
| b                         | It is certified that I/We have carefully gone through the specifications, special conditions etc. shown in the Tender Document.  |
| c                         | I/We undertake to keep this offer valid for a period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period. |

**Signature of Tenderer with seal**

## **OFFER SHEET - IX**

### **SCHEDULE OF REQUIREMENTS (PRICE SCHEDULE)**

**Tender No. RailTel/Tender/OT/WR/OFC Instruments/2016-17/24/9**

**Name of Supply: "Procurement of 2MB PCM Mux (E1) analyzer as per the specification detailed at Schedule of Requirement."**

| Sr. No | Item Description  | Unit | Qty . | Unit Basic Price | Packing & Forwarding Charges | ED @ ____% | Sales Tax/CST/VAT/LST @ ____% | Freight & Insurance charges | Unit Cost CIP destination |          | Total cost CIP destination |          |
|--------|---|------|-------|------------------|------------------------------|------------|-------------------------------|-----------------------------|---------------------------|----------|----------------------------|----------|
|        |   |      |       |                  |                              |            |                               |                             | In figures                | In words | In figures                 | In words |
| 1      | Supply of 2MB PCM Mux (E1) analyzer as per specification attached at Annexure-IX. | Nos. | 04    |                  |                              |            |                               |                             |                           |          |                            |          |
|        | Quote Make and Model No. offered by Tenderer                                      |      |       |                  |                              |            |                               |                             |                           |          |                            |          |

**NOTE:** Only OEM or their official authorized vendors are allowed to participate confirming that they are complying the Specification details given in Annexure. Incorrect or misleading compliance/information will be dealt seriously.

The authorized vendors shall submit a letter from OEM that they are their authorized vendor to supply the equipment.

| <b>Note for Guidance:</b> |  |
|---------------------------|--|
| a                         | [i] Unit cost quoted against SOR above should be inclusive of all duties, taxes, freight etc.  |
|                           | [ii] Tax break up to be submitted by bidder in Form No. 16 annexed with Tender Document.   |
|                           | [iii] The offered make and model must meet every specification.  |
| b                         | It is certified that I/We have carefully gone through the specifications, special conditions etc. shown in the Tender Document.  |
| c                         | I/We undertake to keep this offer valid for a period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period. |

**Signature of Tenderer with seal**



## CHAPTER III

### Terms & Conditions

#### 1. Offer letter and Validity of Offer

- 1.1. The bidder shall complete the offer letter and the price schedule furnished in the bid documents, indicating the goods to be supplied, description of the goods, associated technical literature, quantity and prices etc. For the items not manufactured by bidders, the authorization from original equipment manufacturer should be enclosed.
- 1.2. Tender cost of **Rs. 5250** /- should be deposited in favour of RailTel Corporation of India Ltd., payable at Mumbai, in the form of Demand Draft drawn on any Scheduled Bank/Nationalized bank for tender document downloaded from website..
- 1.3. The various items to be supplied by the tenderer are indicated in Schedule of Requirement as in chapter 2 of this tender document as Offer Sheet - I to Offer Sheet -IX.. The tenderer is advised to quote rate in figures & words for unit cost CIP Destination and Total cost CIP Destination for the each items in the concerned offer sheet.

**The tenderer may quote for one or more schedules as given below**

| <b>Tender No.</b> | <b>Description of material</b>                                 | <b>Earnest Money to be paid in Rs.</b> |
|-------------------|--|--|
| 24/1              | Procurement of Splicing machine.                               | <b>81980</b>                           |
| 24/2              | Procurement of Optical Time Domain Reflectometers (OTDR)       | <b>52400</b>                           |
| 24/3              | Procurement of Cable Route Tracer.                             | <b>8140</b>                            |
| 24/4              | Procurement of Optical Power Meter                             | <b>1530</b>                            |
| 24/5              | Procurement of Optical Laser Source                            | <b>3760</b>                            |
| 24/6              | Procurement of Mini OTDR (Optical Time Domain Reflectometers ) | <b>6650</b>                            |
| 24/7              | Procurement of Transmission measuring Set                      | <b>980</b>                             |
| 24/8              | Procurement of SDH analyzer                                    | <b>46960</b>                           |
| 24/9              | Procurement of PCM Mux (E1) analyzer                           | <b>25950</b>                           |

- 1.4. Bidder may enclose their credentials including supply of similar equipment to other government/PSUs/ Telecom Service Providers.
- 1.5. The offer should remain valid for a period of **90 days** from the date of opening.

## **2. Warranty**

- 2.1 The contractor shall warrant that Equipments to be supplied shall be new and free from all defects and faults in material, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards of materials of the type ordered and shall perform in full conformity with the specifications and drawings. The contractor shall be responsible for any defects that may develop under the conditions provided by the contract and under proper use, arising from faulty materials, design or workmanship such as corrosion of the equipment, inadequate quantity of material to meet equipment requirements, inadequate contract protection, deficiencies in circuit design and / or otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser who shall state in writing in what respect the stores are faulty.
- 2.2 If it becomes necessary for the contractor to replace or renew any defective portion/portions of the equipment under this clause, the provisions of the clause shall apply to the portion/portions of the equipment so replaced or renewed or until the end of the mentioned period in “Annexures” of respective item , if any defect is not remedied within a reasonable time, the Purchaser may proceed to do the work at the contractor’s risk and expenses, but without prejudice to any rights which the Purchaser may have against the contractor in respect of such defects.
- 2.3 Replacement under warranty clause shall be made by the contractor free of all charges at site including freight, insurance and other incidental charges.

## **3. INSURANCE OF MATERIALS**

- 3.1 The Contractor shall take out and keep in force a Policy or policies of Insurance for all materials supplied.
- 3.2 It may be noted that the beneficiary of the insurance policy should be RailTel or the policies should be pledged in favor of RailTel

## **4. Delivery Period**

The Equipments should be supplied within **30 days** of issue of “Purchase Order.”

## **5. Place of Delivery**

The items shall be delivered at Ahmadabad/ RCIL.

## 6. Payment Terms

6.1. 100 % of the value of the order on receipt of materials at site duly inspected and accompanied with the following documents:

- Invoice
- Delivery Challan duly accepted by Consignee.
- Excise Duty Gate pass/Excise Invoice or equivalent or Custom Duty Receipt, etc as applicable.
- Inspection certificate
- Warranty/Guarantee certificate of OEM/Supplier
- Contractor's certificate of dispatch.
- Consignee's receipt.
- Insurance Certificate
- Undertaking against fall clause.
- OEM certificate that material supplied is as per specification / the quantity material supplied as per SOR.

6.2. Deleted

## 7. Performance Bank Guarantee (PBG)

The supplier is required to submit a Performance Bank Guarantee (PBG) within 15 days of issue of Purchase Order for 10 % of the value of the order valid for a warranty period mentioned in annexures of respective item beyond delivery period towards satisfactory performance of contract. The PBG shall be returned after successful completion of contractual obligation and acceptance of material duly accepted by consignee. The Performa for PBG is given in **Chapter IV**.

## 8. Taxes & Duties

Please see clause 21.

## 9. Liquidated Damages

The timely delivery is the essence of this project, Liquidated damages will be applicable at the rate of half percent per week or part thereof for undelivered portion subject to a maximum of 10 % of the cost of supply. RailTel will have the right to cancel the order, place order on alternative source at risk & cost of the supplier besides levying the L.D.

The competent authority while granting extension of currency of the contract may also levy token penalty as deemed fit based on the merit of case.

## 10. Transportation

The rates quoted should be F.O.R. destination.

**11. Statutory Deduction**

These will be made at source as per the rules prevalent in the area of work.

**12. Issue of Purchase Order/ Award of Contract**

The purchaser shall consider placement of orders for commercial supplies on those bidder whose offers have been found technically and commercially acceptable and are lowest. The issue of purchase order shall constitute the award of contract on the bidder. The bidder shall within 15 days of issue of Purchase Order, give his acceptance along with Performance Bank Guarantee as per Clause 7.

**13. Purchaser's Right to Vary Quantities**

The Purchaser reserves the right at the time of award of contract to increase or decrease by upto 25 % of the quantity of goods and services specified in the Schedule of Requirements without any change in unit price of the ordered quantity or other terms and conditions.

**14. Splitting of Order**

Railtel may consider splitting of orders as the case may be.

**15. Purchaser's Right to accept any Bid and to reject any or all Bids**

The purchaser reserves the right to accept or reject any Bid and to annul the bidding process and reject all bids, at any time prior to award of contract without any reason whatsoever and without thereby incurring any liability to the affected bidder or bidders on the grounds for the Purchaser's action.

**16. Issue of Advance Purchase Order**

Deleted

**17. Issue of Purchase Order and Award of contract – Please see Clause 11.**

**18. Annulment of Award**

Failure of the successful bidder to comply with the requirement of Clause 12 shall constitute sufficient ground for the annulment of the award and forfeiture of EMD in which event the Purchaser may make the award to any other bidder at the discretion of the Purchaser or call for new bids.

**19. Earnest Money Deposit (EMD)**

The tenderer is required to submit EMD as prescribed in Para 1.3 of tender document above. For bidding more than one schedule, the tenderer is required to submit a sum of the EMD prescribed for the schedules. The Earnest Money should be deposited in favour of RailTel Corporation of India Ltd., payable at Mumbai, in the form of Demand Draft drawn on any Scheduled Bank/Nationalized bank. The validity of Demand draft will be at least 60 days beyond opening of tender. No interest is allowed on this Deposit.

- 19.1 Earnest Money as per Tender Notice shall be submitted in the form of Demand Draft from any Nationalised / Scheduled bank in India in favour of **“RailTel Corporation of India Limited” payable at Mumbai.**
- 19.2 The EMD may be forfeited if a bidder withdraws his offer or modifies the terms and conditions of the offer before validity period and in the case of a successful bidder, if the bidder fails to accept the Purchase order and furnish performance security in accordance with clause 12 and 7.
- 19.3 Tenders not accompanied by Earnest Money shall be summarily rejected.
- 19.4 Earnest Money of the unsuccessful bidder will be discharged/returned as promptly as possible.
- 19.5 The successful bidder's bid security will be discharged upon the bidder's acceptance of the purchase order satisfactorily and furnishing the performance bank guarantee in accordance with **Clause 7.**  
The firm registered with National Small Industries Corporation (NSIC) under its Single point registration scheme or registered as Micro, Small and Medium Enterprises under MSMED Act 2006 with District Industries Centres or Khadi & Village Industries Commission or Khadi & Village Industries Board or Coir Board or Directorate of Handicrafts & Handloom or any other body specified by Ministry of Micro, Small & Medium Enterprise will be exempted from the payment of Earnest Money Deposit provided they are registered for the same scope of work as NIT. The documents submitted by the firm shall be duly certified/attested.

## 20. FALL CLAUSE

- I The price charged for the stores under the contract by the contractor shall not in any event exceed the lowest price at which the contractor sells the stores or other offers to sell stores of identical description to any person / organizations including the purchaser or any department of the Central Government or any State Government or any statutory undertaking of Central or State Government, as the case may be during the period till the performance of all supply orders placed during the currency of the Purchase Order is completed.
- II If at any time the said period, the contractor reduces the sale price, sells or offers to sell such stores to any person / organization including the purchaser or any department of the Central Government or any State Government or any statutory undertaking of Central or State Government, as the case may, at a price lower than the price chargeable under the contract, he shall forthwith notify such reduction in sale price to the Purchaser and the price payable under the contract for the stores supplied after the date of coming into force of such reduction shall stand correspondingly reduced, the above stipulation will, however, not apply to,  
(a) Export / Deemed Export by the contractor,  
(b) Sale of goods such as drugs which have expiry dates, and
- III The Contractor shall furnish the following certificate to the bill paying officer along with each bill for payment of supplies made against the contract. "I / We certify that

there has been no reduction in sale price of the stores of description identical to the stores supplied under the contract herein and such stores have not been offered / sold by me/us to any person / organization including the purchaser any department of the Central Government or any State Government or any statutory undertaking of Central or State Government, as the case may be, up to the date of bill / the date of completion of supplies against all supply orders placed during the currency of the contract at a price lower than the price charged to the purchase order under the contract except for quantity of Stores categorized under sub-clause (a) & (b) of sub para II above, details of which are as follows: "

## **21. BID PRICES, Taxes & Duties**

21.1 The bidder shall give the total composite price inclusive of all levies and taxes, packing, forwarding, freight and insurance etc. The basic unit price and all other components of price need to be individually indicated against the goods it proposes to supply under the contract as per schedule given in **Chapter II**. The price shall be firm in Indian Rupees and FOR Destination. No Foreign exchange will be made available by the purchaser. Sales Tax Form "C" shall be provided by RailTel.

21.2 Deleted.

21.3 The base price quoted shall remain fixed during the entire period of contract and shall not be subject to variation on any account .Any statutory revision /variation in taxes/duties shall be to the RailTel account and shall be admissible on production of valid documentary evidence .For this Tenderer shall submit the taxes /duties structure considered by him while quoting the rates.

## **22 Clause wise Compliance**

Clause wise compliance statement of the Technical Specifications and Commercial Terms & Conditions shall be enclosed with the offer along with technical literature of the material and other documents in support of relevant clauses.

## **23 Provenness of the equipment**

In order to enable the Purchaser to assess the provenness of the system offered, the bidder shall provide documentary evidence regarding the equipments being offered by him.

## **24 Training:**

Deleted

## **25 Inspection**

- 25.1 All equipments materials fittings and components supplied by the contractor will be required to be inspected as per the codes and specifications by the Purchaser or his representative before accepting the delivery.
- 25.2 All materials shall be procured from the manufacturers of repute/their authorized dealers. Such materials are to be accepted by the Engineer. The contractor may be required to produce test certificate from the manufacturer wherever called for by the Engineer.
- 25.3 The inspection charges, if any, payable to the purchaser's representative for carrying out the inspection shall be borne by the purchaser.
- 25.4 The cost of equipment and materials, all tests and/or analysis performed for inspection shall be borne by the contractor.
- 25.5 The inspection will be done by consignee.(Manager or Sr.Manager /Tech /Ahmadabad)

## **26 Force Majeure**

Force Majeure shall mean -

- War, hostilities (whether war be declared or not), invasion, act of foreign enemies.
- Rebellion, revolution, insurrection or military or usurped power, or civil war.
- Ionizing radiation, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio active toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof.
- Presume waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds.
- Riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his Subcontractors and arising from the conduct of the works.
- Loss or damage due to the use or occupation by the Employer of any section or part of the permanent works, except as may be provided for in the contract.
- Loss or damage due to the extent that it is due to the design of the works, other than any part of the design provided by the contractor or for which the contractor is responsible, and
- Any operation of the forces of nature against which an experienced contractor could not reasonably have been expected to take precautions.

## **27 Settlement of Disputes**

In case of any dispute concerning this order both the supplier and RailTel shall try to settle the same amicably through mutual discussion/negotiations. Any unsettled dispute shall be settled in terms of Indian Act of Arbitration and conciliation 1996 or any amendment thereof. Place of arbitration shall be New Delhi. Arbitrator shall be appointed by Managing Director, RailTel Corporation of India Limited.

## **28 Governing Laws**

This contract shall be interpreted in accordance with the laws of India. The courts at Mumbai shall have exclusive jurisdiction to entertain and try all matters arising out of this contract.

## **29 Termination for Default**

29.1 The purchaser may without prejudice to any other remedy for breach of contract, by written notice of default, sent to the supplier, terminate this contract in whole or in part.

- a) If the supplier fails to deliver any or all of the goods within the time period(s) specified in the contract.
- b) If the supplier fails to perform any other obligation(s) under the contract; and
- c) If the supplier, in either of the above circumstance(s) does not remedy his failure within a period of 30 days (or such longer period as the Purchaser may authorize in writing) after receipt of the default notice from the purchaser.

29.2 In the event the purchaser terminates the contract in whole or in part, the Purchaser may proceed, upon such terms and in such manner, as it deems appropriate, goods similar to those undelivered and the supplier shall be liable to the Purchaser for any excess cost for such similar goods. However, the supplier shall continue performance of the contract to the extent not terminated.

## **30 Termination for Insolvency**

The purchaser may at any time terminate the contract by giving written notice to the supplier, without compensation to the supplier, if the supplier becomes bankrupt or otherwise insolvent as declared by the competent court provided that such termination will not prejudice or affect to the Purchaser.

## **31 Comprehensive Repair Charges**

Deleted

## **32 Bid Submission and Opening date**



- 33.1 The bid should be submitted in original. Tender document cost if downloaded from website and EMD should be enclosed with the original bid. The envelope containing the bid duly marked with Tender No. and Subject should be sealed and stamped with the personal seal of the bidder. Each and every page of bid should be stamped and signed by authorized representative of the firm. Power of attorney in favour of the signatory duly authorizing the signatory shall be enclosed in the bid.
- 33.2 The envelop shall be addressed to the Purchaser at the following address:  
**Executive Director  
RailTel Corporation of India Limited,  
Western Railway microwave compound,  
Senapati Bapat Marg, Mahalaxmi,  
Mumbai – 400 013.**
- 33.3 The envelope shall bear name of the work i.e. Subject, Tender No. and the words “DO NOT OPEN BEFORE –18.11.2016.
- 33.4 Bid should be delivered to the above address so as to reach up to **15:00 hours** of 18.11.2016 . The bids shall be opened at 15:30 hours on the same day in the above office in the presence of those representative of the bidders who choose to be present. Bids received after due date and time shall be summarily rejected and shall not be opened.

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**Chapter IV**  
**CONTRACT PERFORMANCE GUARANTEE BOND**

(On Stamp Paper of Rs one hundred)  
(To be used by approved Scheduled Banks)

In consideration of the RailTel Corporation of India Limited, at 6<sup>th</sup> Floor, IIIrd block, Delhi Technology Park, Shashtri Park, Delhi-110053, with Western Regional office at Western Railway Microwave Complex, Opposite Ambika Mills, Senapati Bapat Marg, Mahalaxmi (West), Mumbai-400013 (Herein after called the RailTel) having agreed to exempt ..... (Hereinafter called "the said Contractor(s)") from the demand, under the terms and conditions of an Agreement No. .... dated ..... made between RailTel Corporation of India Limited and ..... for (hereinafter called "the said Agreement") of security deposit for the due fulfillment by the said Contractor(s) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for `..... (Rs. .... only). We, ..... (indicate the name of the Bank) hereinafter referred to as "the Bank") at the request of ..... Contractor(s) do hereby undertake to pay the RailTel an amount not exceeding ` ..... against any loss or damage caused to or suffered or would be caused to or suffered by the RailTel by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

We, .....(name of Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on demand from the RailTel stating that the amount as claimed is due by way of loss or damage caused to or would be caused to or suffered by the RailTel by reason of breach by the said Contractor(s) of any of terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding ` .....only.

We, .....(name of bank) undertake to pay to the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) / Supplier(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal.

The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s) / Supplier(s) shall have no claim against us for making such payment.

We, .....(name of bank) further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the RailTel under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before the ..... We shall be discharged from all liability under this Guarantee thereafter. We,.....(name of bank) further agree with the RailTel that the RailTel shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the Agreement or to extend time or to postpone for any time or from time to time any of the powers exercisable by the RailTel against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by

reason of any such variation, or extension to the said Contractor(s) or for any forbearance, act or omission on the part of RailTel or any indulgence by the RailTel to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.

This Guarantee will not be discharged due to the change in the Constitution of the Bank or the Contractor(s)/ Supplier(s).

We ..... (the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

**NOT WITH STANDING ANYTHING CONTAINED HEREIN ABOVE**

- (i) The liability of the surety under his Bank Guarantee shall not exceed `..... (Rupees ..... only).
- (ii) This Bank guarantee shall be valid upto .....
- (iii) We are liable to pay the guaranteed amount or nay part thereof under this Bank Guarantee only and only if you serves upon the bank, written claim or demand on or before .....

Dated the .....day of ..... 2016

for .....  
(Indicate the name of the Bank)

Witness:

Signature :  
Name :

Signature :  
Name :

NOTE: The Guarantee shall be valid for a period of 04 months after the expiry of the warranty period of the work as per Clause 7 of chapter 3.

\*\*\*\*\*

**Annexure- I**

**Technical Specifications for Splicing machine**  
**The offered Model must meet each specification**

| S.No. | Item Description             | Requirement   | Compliance :<br>Yes/No |
|-------|------------------------------|---|------------------------|
| 1     | Applicable Fibers            | Single/SMF(G.652),MMF(G.651),NZDSF(G.655)   |                        |
| 2     | Cladding Dia.                | 80-150µm  |                        |
| 3     | Fiber Cleave Length          | 5-16mm  |                        |
| 4     | Average Splice Loss          | SM:0.02dB,MM:0.01dB,NZD:0.04dB  |                        |
| 5     | Splice Time                  | Typical 7 Seconds(with Fast Mode) and Typical 10 Seconds (with Auto Mode)         |                        |
| 6     | Heat Time                    | Maximum 15 Seconds  |                        |
| 7     | Splice Modes/Programs        | Minimum 100 Modes   |                        |
| 8     | Automatic Splicing Selection | SM:SM,NZD,MM:MM   |                        |
| 9     | Heat Programs/Modes          | Minimum 30 Modes  |                        |
| 10    | Applicable Sleeves           | 40/60mm   |                        |
| 11    | Fiber Holding                | Tight holder(Loose tube applicable) or Removal Fiber Holder System                |                        |
| 12    | Tension Test                 | ≥1.96N  |                        |
| 13    | Fiber Image Magnification    | Min. X/Y (320X magnification),or both X and Y simultaneously (200X magnification) |                        |
| 14    | Splice Memory                | Minimum 20000 splices   |                        |
| 15    | Other Features               | PC Software upgraded/data management  |                        |
| 16    | Monitor                      | Minimum 4.7" color LCD monitor  |                        |
| 17    | Data Output                  | USB ver.2.0 mini  |                        |
| 18    | Battery Capacity             | Minimum 200 splice with one full battery charge                                   |                        |
| 19    | Altitude                     | 5000m   |                        |
| 20    | Wind Protection              | 15m/sec, Automated wind protection  |                        |
| 21    | Operating Temperature        | -10 to +50°C  |                        |
| 22    | Humidity                     | 0 to 95%RH,non-dew  |                        |
| 23    | Power Source                 | AC Input 100 to 240V (50/60Hz)  |                        |
| 24    | Electrode Life               | 5000 splices minimum  |                        |
| 25    | Weight                       | ≤ 3Kg.(including Battery)   |                        |
| 26    | Resistance                   | Shock resistance to minimum 2 ½ feet drop all surface.                            |                        |
| 27    | Warranty                     | One year  |                        |

| S.No. | Item Description | Requirement   | Qty.     | Compliance :<br>Yes/No |
|-------|------------------|---|----------|------------------------|
| 28    | Standard Package | 1.Main Body   | 1 No.    |                        |
|       |                  | 2.Hard Carrying Case  | 1No.     |                        |
|       |                  | 3.Battery Pack  | 2 Nos.   |                        |
|       |                  | 4.Spare Electrodes  | 1 Pair   |                        |
|       |                  | 5.AC adaptor  | 1 No.    |                        |
|       |                  | 6.AC Power Cord   | 1 No.    |                        |
|       |                  | 7.Cotton Bud  | 1 No.    |                        |
|       |                  | 8.Cleaning Brush  | 1No.     |                        |
|       |                  | 9.Fiber Stripper  | 1No.     |                        |
|       |                  | 10.Instruction Manual CD  | 1No.     |                        |
|       |                  | 11.Quick Reference guide  | 1No.     |                        |
|       |                  | 12.USB Cable  | 1No.     |                        |
|       |                  | 13.Sleeve loader  | 1No.     |                        |
|       |                  | 14.Alcohol pot  | 1No.     |                        |
|       |                  | 15.High Precession fiber cleaver  | 1No.     |                        |
|       |                  | 16.Electrode Sharpener  | 1No.     |                        |
|       |                  | 17.Splice Protection Sleeves (45 mm)  | 500 Nos. |                        |
|       |                  | 18.Shoulder Strap   | 1No.     |                        |
|       |                  | 19.Battery Charger  | 1No.     |                        |
|       |                  | 20.Loose tube cutter  | 1No.     |                        |
|       |                  | 21.Cable cutter   | 1No.     |                        |
|       |                  | 22.Cable Ringing tool   | 1No.     |                        |
|       |                  | 23.Screw driver set   | 1No.     |                        |
|       |                  | 24.Suitable printer   | 1No.     |                        |
| 29    | Support          | Minimum 5 years support for maintenance services, repairs & availability of spares should be certified. |          |                        |

**Annexure- II**

**Technical Specifications for OTDR**  
**The offered Model must meet each specification**

| Sr.No. | Make                  | Spec.   | Compliance :<br>Yes/NO |
|--------|-----------------------|---|------------------------|
| 1      | Wavelength            | 1310/1550 nm $\pm$ 20nm   |                        |
| 2      | Fiber Type            | Single Mode (SMF)   |                        |
| 3      | Dynamic Range         | 41/40 dB  |                        |
| 4      | Event Dead zone       | $\leq$ 1m   |                        |
| 5      | Attenuation Dead Zone | $\leq$ 2 m  |                        |
| 6      | Laser Safety          | IEC 60825-1, Class 1M   |                        |
| 7      | Connector Type        | FC/PC or SC/PC  |                        |
| 8      | Display               | Minimum 8", Touch screen, Indoor/Outdoor type   |                        |
| 9      | Interface             | Minimum 2 ports USB. USB mass storage devices keyboard mouse supported  |                        |
| 10     | Data Storage          | Internal memory : Equal to or More than 1000 traces   |                        |
| 11     | Power Supply          | Power Adaptor Supporting AC Input 230V AC. Battery backup of minimum 8 Hrs.                                     |                        |
| 12     | Reflectance Accuracy  | $\pm$ 2dB   |                        |
| 13     | Distance Accuracy     | $\pm$ 0.75 m $\pm$ sampling resolution $\pm$ measurement distance $\times 10^{-5}$                              |                        |
| 14     | Distance Ranges       | Single Mode: up to 320 km   |                        |
| 15     | Result Printer        | HP Lase pro 1025nw or superior  |                        |
| 16     | Testing Modes         | Fiber Visualizer: Provide end/break location, end to end loss, fiber length, easy graphical summary, PDF report |                        |
|        |                       | Standard OTDR: User selectable automatic or manual set-up   |                        |
|        |                       | Light source: Stabilized Light source (CW, 270 Hz, 1 kHz, 2 kHz output)   |                        |
|        |                       | In-built Power Meter: 1310/1490/1550/1625 nm wavelength   |                        |

| Sr.No. | Make                     | Spec.   | Compliance : Yes/NO |
|--------|--------------------------|---|---------------------|
| 17     | Fiber Event Analysis     | Auto or manual operation, displayed in table format   |                     |
|        |                          | User defined PASS/FAIL thresholds:  |                     |
|        |                          | - Reflective and non-reflective events: 0.01 to 0.99 dB (0.01 dB steps)   |                     |
|        |                          | - Reflectance: –70.0 to –20.0 dB (0.1 dB steps)   |                     |
|        |                          | - Fiber end/break: 1 to 99 dB (1 dB steps)  |                     |
|        |                          | Number of detected events: up to 99   |                     |
|        |                          | Macro bend detection  |                     |
| 18     | OTDR Trace Format        | Telcordia universal. SOR, issue 2 (SR-4731)   |                     |
| 19     | Other Functions          | Real time sweep: 0.15 sec.  |                     |
|        |                          | Loss modes: 2-point loss, dB/km, 2-point LSA, splice loss, ORL  |                     |
|        |                          | Live Fiber detect : Verifies presence of communication light in optical fiber   |                     |
|        |                          | Connection check: Automatic check of OTDR to FUT connection quality   |                     |
|        |                          | Trace overlay and comparison, Template function, USB keyboard support, Remote control, Video output to PC   |                     |
| 20     | File Transfers           | When connected to a PC via a USB cable, the internal memory of the OTDR should be directly accessed. Data should be selected, dragged and dropped into the PC memory. The OTDR should support use of USB memory sticks. |                     |
| 21     | Environmental Conditions | Operating temperature and humidity: –10° to +50°C, <80% (non-condensing   |                     |
|        | EMC                      | EN61326-1, EN61000-3  |                     |
|        | Connectivity             | Ethernet  |                     |
| 22     | Protector                | Should include rubber bumpers, display cover  |                     |
| 23     | Accessories              | battery pack; AC charger/adapter  |                     |
|        |                          | user's manual (CD)  |                     |
|        |                          | Carrying Case   |                     |
|        |                          | PC Emulation Software for Data Analysis and Reporting   |                     |

| Sr.No. | Make                 | Spec.  | Compliance :<br>Yes/NO |
|--------|----------------------|--|------------------------|
| 24     | Warranty<br>Sampling | Three Years from Date of Supply  |                        |
|        |                      | 2,56,000 Data points   |                        |
| 25     | Future Proof         | The OTDR should be modular based and upgradable  |                        |
| 26     | Support              | Minimum 5 years support for maintenance services, repairs & availability of spares should be certified |                        |



| Annexure -III   |                              |  |                        |
|---|------------------------------|--|------------------------|
| <b>Cable Route Tracer</b><br>The offered Model must meet each specification |                              |  |                        |
| S. no.  | Description                  | Sub Details  | Compliance :<br>Yes/NO |
| 1   | Frequency                    | Audio & Radio frequency locating.<br>2 Active Frequencies 8K Hz (Audio) & 82 Khz (Radio Frequency) - both in Transmitter & Receiver Additionally<br>4 user configured frequencies in Rx - can be decided by user |                        |
| 2   | Method of Tracing            | 3 Methods- Direct Connection, Inductive clamping, Direct Induction method ( Tracing even without physical access to cable )  |                        |
| 3   | Induction mode locating      | Inbuilt induction coil in Transmitter for high radio frequency transmission used for induction to locate the cables without any connection. It is important for damage avoidance application                     |                        |
| 4   | Locating Mode                | 2 Types of locating mode- Single and Dual Peak Mode  |                        |
| 5   | Display                      | Simplifies Line Mapping with cable direction guidance with both signal strength bar graph and right/left arrow display.  |                        |
| 7   | Relative current Measurement | Measures the relative path current with single button press to verify that located cable is the right one cable of interest.   |                        |
| 8   | Passive Mode locating        | Available passive frequencies are-<br>50/60 Hz-Power cable<br>512Hz,612Hz, 33KHz-Sonde locating.<br>100/120Hz-Cathodic protection signal<br>31.2Khz-Cable TV locating  |                        |
| 9   | Depth Range                  | Up to 9 meter  |                        |
| 10  | Depth Measurement            | Both Snap shot & continuous depth measurement mode   |                        |

| S. no.               | Description                              | Sub Details  | Compliance :<br>Yes/NO |
|----------------------|--|--|------------------------|
| 11                   | Antena design and accuracy in congestion | Usage of multi bi directional antennas for efficient and accurate locating in congestion.Different locating modes in the unit ensures high accuracy even under distortion conditions |                        |
| 12                   | Battery Life                             | 30 Hrs of normal operation   |                        |
| 14                   | Weatherproof                             | comply to IP 54 standard   |                        |
| 15                   | Updating of Latest Software              | Can be connected to computer via RS232 & latest software can be downloaded without any additional cost   |                        |
| Transmitter Features |  |  |                        |
| 16                   | Out put Power                            | Up to 12 Watt power out put in steps of 0.5, 3 and 12 Watt   |                        |
| 17                   | Out put Frequency                        | 8K & 82 KHz  |                        |
| 18                   | Weight                                   | less than 2.5 Kg   |                        |
| 19                   | Battery Life                             | Battery Life 40 hours typical (normal output level) and 10 hours typical (high output level)   |                        |
| 20                   | Safety Standard                          | IP 54 OR Better  |                        |
| 21                   | Warranty                                 | 1Year  |                        |

Annexure -IV

**Power meter (handheld)**

The offered Model must meet each specification

| S. no. | Description  | Compliance :<br>Yes/NO |
|--------|--|------------------------|
| 1      | Detector type : InGaAs   |                        |
| 2      | Optical interface/connectors : Universal 2.5 mm  |                        |
| 3      | Wavelength range : 780 to 1650 nm  |                        |
| 4      | Wavelength settings : 780 to 1650 nm, in 1 nm steps  |                        |
| 5      | Programmable wavelengths : 5 presets (customized)  |                        |
| 6      | Calibrated wavelengths : 850, 980, 1300, 1310, 1490, 1550, 1625 nm                           |                        |
| 7      | Power range : -65 to +10 dBm   |                        |
| 8      | Display range : -65 to +13 dBm   |                        |
| 9      | Max. input power : +16 dBm   |                        |
| 10     | Measurement units : dB/dBm/W   |                        |
| 11     | Absoulte uncertainty : $\pm 0.2$ dB ( $\pm 5\%$ )  |                        |
| 12     | Linearity : $\pm 0.06$ dB (-50 to +5 dBm)  |                        |
| 13     | Tone detection : 270 Hz, 1 kHz, 2kHz   |                        |
| 14     | Data storage : atleast 100 results   |                        |
| 15     | Rechargeable battery with $\geq 200$ hrs backup and should have automatic power off feature. |                        |
| 16     | Tester should be CE compliance.  |                        |
| 17     | Operating temperature : -10°C to +55°C   |                        |
| 18     | Storage temperature : -40°C to +70°C   |                        |
| 19     | The weight of the tester should be less than 300gms.   |                        |
| 20     | Power supply adaptor should be provide to operate the tester with AC power supply.           |                        |
| 21     | Warranty 3 years   |                        |

Annexure-  
V

### Laser Source

The offered Model must meet each specification

| S. no. | Description  | Sub Details  | Compliance :<br>Yes/NO |
|--------|--|--|------------------------|
| 1      | Source type  | Laser  |                        |
| 2      | Laser safety   | IEC 60825-1:2007   |                        |
| 3      | Fiber type   | SM (9/125µm)   |                        |
| 4      | Optical interface type   | PC type single port  |                        |
| 5      | Optical interface connector  | Fixed FC Type  |                        |
| 6      | Central wavelength   | 1310nm (±20nm) and 1550nm (±20nm)  |                        |
| 7      | Spectral width   | <5nm   |                        |
| 8      | Output power   | -7 dBm   |                        |
| 9      | Stability  | ±0.05 dB or better   |                        |
| 10     | Tone generation  | 270Hz, 1kHz, 2kHz  |                        |
|        |  | Rechargeable battery with more than 70hrs backup and should have automatic power off feature |                        |
|        |  | Tester should be CE compliance.  |                        |
| 12     | Operating temperature  | -10°C to +60°C   |                        |
| 13     | Storage temperature  | -40°C to +70°C   |                        |
| 14     | The weight of the tester should be less than 300gms                                |  |                        |
| 15     | Power supply adaptor should be provide to operate the tester with AC power supply. |  |                        |
| 16     | Warranty 3 years   |  |                        |

**MINI OTDR**

The offered Model must meet each specification

| S. no. | Description           | Sub Details   | Compliance :<br>Yes/NO |
|--------|-----------------------|---|------------------------|
| 1      | Wavelength            | 1310/1550 nm $\pm$ 20nm   |                        |
| 2      | Fiber Type            | Single Mode (SMF)   |                        |
| 3      | Dynamic Range         | 40/40 dB on both wavelength or better   |                        |
| 4      | Event Dead zone       | $\leq$ 1m or better   |                        |
| 5      | Attenuation Dead Zone | $\leq$ 3 m or better  |                        |
| 6      | Laser Safety          | Class 1   |                        |
| 7      | Electrical Safety     | EN60950 compliant   |                        |
| 8      | Connector Type        | FC/PC or SC/PC  |                        |
| 9      | Display               | Minimum 4" with Touch screen, Indoor/Outdoor type or better   |                        |
| 10     | Interface             | 2x USB 2.0 ports, 1x mini-USB 2.0 port or better  |                        |
| 11     | Data Storage          | Internal memory : Equal to or More than 8000 traces   |                        |
| 12     | Power Supply          | AC/DC adapter, input 100-250 V AC, 50-60 Hz; with rechargeable Lithium-polymer battery, up to 20 hours of operation |                        |
| 13     | Distance Accuracy     | ( $\pm 1$ m) $\pm$ (sampling resolution) $\pm$ (1.10–5 x distance), excluding group index uncertainties             |                        |
| 14     | Distance Ranges       | Single Mode: up to 240 km or better   |                        |
| 15     | Testing Modes         | Fiber Visualizer: Provide end/break location, end to end loss, fiber length, easy graphical summary, PDF report     |                        |
|        |                       | Standard OTDR: User selectable automatic or manual set-up   |                        |
|        |                       | Light source: Stabilized Light source (-3.5dBm output)  |                        |
| 16     | Fiber Event Analysis  | Auto or manual operation, displayed in table format   |                        |
|        |                       | User defined PASS/FAIL thresholds:  |                        |
|        |                       | Reflective and non-reflective events: 0.01 to 9.99 dB (0.01 dB steps)   |                        |
|        |                       | Reflectance: -70.0 to -20.0 dB (0.1 dB steps)   |                        |
|        |                       | Fiber end/break: 1 to 99 dB (1 dB steps)  |                        |
|        |                       | Number of detected events: up to 99   |                        |
|        |                       | Macro bend detection  |                        |

| S. no. | Description                | Sub Details   | Compliance :<br>Yes/NO |
|--------|----------------------------|---|------------------------|
| 17     | OTDR Trace Format          | Telcordia universal. SOR, issue 2 (SR-4731)   |                        |
| 18     | Other Functions            | Real time sweep: 0.15 sec.  |                        |
|        |                            | Loss modes: 2-point loss, dB/km, 2-point LSA, splice loss, ORL  |                        |
|        |                            | Live Fiber detect : Verifies presence of communication light in optical fiber   |                        |
|        |                            | Connection check: Automatic check of OTDR to FUT connection quality   |                        |
|        |                            | Trace overlay and comparison, Template function, USB keyboard support, Remote control, Video output to PC   |                        |
| 19     | File Transfers             | When connected to a PC via a USB cable, the internal memory of the OTDR should be directly accessed. Data should be selected, dragged and dropped into the PC memory. The OTDR should support use of USB memory sticks. |                        |
| 20     | Environmental Conditions   | Operating temperature and humidity: -10° to +50°C, <80% (non-condensing)  |                        |
|        | EMC                        | EN61326-1, EN61000-3  |                        |
|        | Connectivity               | Wifi / Bluetooth optional   |                        |
| 21     | Protector                  | Should include rubber bumpers, display cover  |                        |
| 22     | Accessories                | battery pack; AC charger/adaptor  |                        |
|        |                            | user's manual (CD)  |                        |
|        |                            | Carrying Case   |                        |
|        |                            | PC Emulation Software for Data Analysis and Reporting   |                        |
| 23     | Warranty Sampling          | 3 Years from Date of Supply   |                        |
|        |                            | 1,28,000 Data points or better  |                        |
| 24     | Weight ( Battery included) | ≤ 1Kg.  |                        |

Annexure – VII

**Transmission Measuring Set**

**Features**

Compact Two in one Instrument with Level Oscillator & Level Meter

- \* Built-in Rechargeable Battery
- \* Easy to Operate, Light in Weight & Portable
- \* Selectable Spot Frequencies from 200Hz to 4000Hz
- \* Extra Switchable Input & Output Impedance of 1120 ohms

**Specifications**

The offered Model must meet each specification

| Description              | Details  | Compliance :Yes/No |
|--------------------------|--|--------------------|
| <b>LEVEL OSCILLATOR</b>  |  |                    |
| Output Frequency         | Twelve selectable frequencies<br>200Hz, 400Hz, 800Hz, 1000Hz,<br>1200Hz, 1400Hz, 1600Hz,<br>1800Hz, 2400Hz, 3000Hz,<br>3500Hz & 4000Hz |                    |
| Frequency Accuracy       | + 2%   |                    |
| Output Level             | 0dBm to -30dBm in 10dB &<br>1dB step & +1dB Continuously<br>variable fine control  |                    |
| Output Level Accuracy    | +0.3dBm (300Hz to 4KHz)  |                    |
| Frequency Response       | +0.2dB (Reference to 0dB at<br>800Hz)  |                    |
| Harmonic Distortion      | <3%  |                    |
| Output Impedance         | 600 ohms, 1120 ohms<br>(switchable)  |                    |
| <b>LEVEL MEASUREMENT</b> |  |                    |
| Frequency Range          | 200Hz to 20Khz   |                    |
| Reference Frequency      | 800Hz  |                    |
| Measuring Range          | -60dBm to +20dBm   |                    |
| Resolution               | 0.1dBm   |                    |
| Display                  | 3 digits with sign for –ve<br>indication   |                    |
| Accuracy                 | +0.5dBm  |                    |

| Description             | Details   | Compliance :Yes/No |
|-------------------------|---|--------------------|
| Input Impedance         | 600 ohms, 1120ohms & Hi (100K) switchable   |                    |
| <b>GENERAL</b>          |   |                    |
| Power Supply            | 1) 230V (-15%+10%),<br>50Hz mains.<br>2) 6V/2.6AH Battery<br>Operation<br>(Rechargeable) with Lo<br>Battery Indication  |                    |
| Dimensions              | 210 (W) x 105(H) X 200(D) mm<br>approx.   |                    |
| Weight                  | 3Kg. approx.  |                    |
| STANDARD<br>ACCESSORIES | 1. Banana to Banana Cable<br>-1 pair<br>2. Banana to Crocodile<br>Cable -1 pair<br>3. Banana to 2 Pin Jack -1<br>No<br>4. Battery Jack Cable -1<br>No.<br>5. Instruction Manual -1<br>No. |                    |



SDH Analyzer

Annexure - VIII

The offer Model must meet each specification

| Sr. No | Description / details   | Compliance: Yes/NO |
|--------|---|--------------------|
| 1      | General : The SDH/PDH Analyzer shall be used for operation , maintenance and Implementation of Optical/ microwave Networks<br>The offered Model must meet each specification  |                    |
| 2      | Scope: -<br>This specification covers detail requirements of SDH Analyzer to be used for SDH/NG-SDH, DWDM networks. All the requirements stated by RCIL in the General Conditions for technical specifications are integral part of this specification. |                    |
| 3      | The tester should be capable of testing both SDH and PDH from E1 to STM-4 interface   |                    |
| 4      | The tester should be capable to perform two different link testing simultaneously from 2 different test ports available on the same tester providing the dual port testing feature.   |                    |
| 5      | The tester should be upgradable to STM-16, STM-64, Ethernet testing up to 10G along with In-Band OSA Module for OSNR measurement for ROADM network and CD/PMD testing with AP facility.   |                    |
| 6      | The tester should have TFT outdoor-enhanced LCD, minimum 8-inch with touchscreen or better  |                    |
| 7      | The tester should have atleast two USB 2.0 ports, one RJ-45 LAN 10/100/1000 Mbit/s, bluetooth (optional) and Wi-Fi (optional), at least one port Mini USB & one Micro SD Interface  |                    |
| 8      | <b>Test Interfaces/Bit Rates</b>  |                    |
| 8.1    | The tester should have facility to test E1 (120 ohms balanced), E1 (75 ohms unbalanced), E3, DS3, E4, STM-1, STM-4 links  |                    |
| 9      | <b>Laser Type / Test Interface</b>  |                    |
| 9.1    | The tester should have slots & ports for SFP+, BNC, Bantam & RJ-48 interfaces   |                    |
| 10     | <b>Modes Of Operation</b>   |                    |
| 10.1   | The tester should have facility to test through Terminate mode, Monitor mode, Thru (Intrusive), Tributary Scan, Drop and Insert mode  |                    |

| Sr. No | Description / details  | Compliance:<br>Yes/NO |
|--------|--|-----------------------|
| 11     | <b>Timing</b>  |                       |
| 11.1   | The tester should have facility to Recoverd from Rx, Internal (Stratum 3), Recovered from External (BITs/SETs), Recovered from 10MHz clock   |                       |
| 12     | <b>SONET/SDH Features</b>  |                       |
| 12.1   | The tester should have facility to test SONET/SDH Framing  |                       |
| 12.2   | The tester should have facility to test Overhead Manipulation/Analysis   |                       |
| 12.3   | The tester should have facility to test PRBS Generation ( $2^{31}$ , $2^{23}$ , $2^{15}$ , Digital Word etc)   |                       |
| 12.4   | The tester should have facility to test PM/SM TTI messages Tx/Rx   |                       |
| 12.5   | The tester should have facility to test Overhead Byte Viewing/Manipultion  |                       |
| 12.6   | The tester should have facility to test Service Disruption Measurements  |                       |
| 12.7   | - SD Seperation/Debounce Time Setting  |                       |
| 12.8   | - SD Threshold Time Settings   |                       |
| 12.9   | The tester should have facility to test Signal Label generation/display  |                       |
| 12.10  | The tester should have facility to test Freq Offset Transmit/Receive   |                       |
| 13     | <b>Round Trip Delay Measurement</b>  |                       |
| 13.1   | The tester should have facility to test RTD Measurement Accuracy (to be mentioned by vendor)   |                       |
| 14     | <b>PRBS Patterns</b>   |                       |
| 14.1   | The tester should have facility to test $2^{15}$ -1, $2^{15}$ -1 Inverse, $2^{20}$ -1, $2^{20}$ -1 Inverse, $2^{23}$ -1, $2^{23}$ -1 Inverse, $2^{31}$ -1, $2^{31}$ -1 Inverse, Programmable - 32 Bit, ANSI and ITU implementation |                       |
| 14.2   | <b>Anomoly/Errors generation - SDH</b>   |                       |

| Sr. No | Description / details  | Compliance:<br>Yes/NO |
|--------|--|-----------------------|
| 14.3   | The tester should have facility to test Bit/TSE, Frame Word, B1, B2, B3, HP-REI, MS-REI, LP-BIP, LP-REI, Insert - Single, Insert - Rate, Multiple  |                       |
| 15     | <b>Defects/Alarms generation/analysis - SDH</b>  |                       |
| 15.1   | The tester should have facility to test LOS, LOF, RS-TIM, MS-AIS, MS-RDI, AU-LOP, AU-AIS, HP-UNEQ, HP-RDI, HP-TIM, HP-PLM, TU-LOP, TU-AIS, TU-LOM, LP-UNEQ, LP-RDI, LP-TIM, LP-PLM, LP-RFI,  |                       |
| 16     | <b>Anomaly/Errors generation/Analysis - PDH</b>  |                       |
| 16.1   | The tester should have facility to test Frame Errors, TSE/Bit Errors, Single and Rate  |                       |
| 17     | <b>SDH Mappings</b>  |                       |
| 17.1   | The tester should have facility to test VC4 Bulk, AU-4-4c, VC12, VC4, VC3, E4, DS3, E3, E1   |                       |
| 18     | <b>PDH Mappings</b>  |                       |
| 18.1   | The tester should have facility to test E3, E1, 64k  |                       |
| 19     | <b>SONET/SDH Results</b>   |                       |
| 20     | <b>Signal Category</b>   |                       |
| 20.1   | The tester should have facility to test Signal Present, Signal Loss Count, Signal Loss Seconds, Receive Frequency, Receive Frequency Deviation, Receive Frequency Maximum Deviation, Transmit Frequency, Electrical Input Level (STS-1 (DBdsx, dBm, volts) and STM-1e (dBnom only)), BPV Count (STS-1 only), BPV Error Rate (STS-1 only) |                       |
| 21     | <b>Regenerator/Section OH Category</b>   |                       |
| 21.1   | The tester should have facility to test FAS/Frame Word Error Count, FAS/Frame Word Error Rate, LOF Count, OOF Count, B1-BIP error Count, B1-BIP error Rate, Severely Errored Seconds, OOF Seconds, Section Trace Mismatch (TIM), J0-Regenerator Trace  |                       |
| 22     | <b>Multiplexer/Line OH Category</b>  |                       |

| Sr. No | Description / details  | Compliance:<br>Yes/NO |
|--------|--|-----------------------|
| 22.1   | The tester should have facility to test APS Message Count, APS Bridge Request Code (Ring), APS Destination Node (Ring), APS Path Code (Ring), APS Status (Ring), APS Request Code (Linear), APS K1 Channel Number (Linear), APS K2 Channel Number (Linear), APS MSP Architecture (Linear), APS Status (Linear), B2-BIP Error Count, B2-BIP Error Rate, SES, Unavailable Seconds, AIS Seconds, REI Count, REI Rate, S1 Synchronization Message, Z1 Byte Value |                       |
| 23     | <b>High Path (AU, VC3/4) OH Category</b>   |                       |
| 23.1   | The tester should have facility to test Pointer Justification Count, Pointer Increment Count, Pointer Decrement Count, Pointer NDF Count, Pointer Value, Pointer Size (SS Bits), LOP Count, B3 (BIP) Error Count, B3 (BIP) Error Rate, B3 (BIP) Errored Seconds, REI Count, VC-3/4 REI Rate, POH SES, POH Unavailable Seconds, Signal Label (C2), J1 Trace Message, Path Status (G1)   |                       |
| 24     | <b>Low Path (VC3/12, TU3/12, VT1.5) Category</b>   |                       |
| 24.1   | The tester should have facility to test Pointer Transmitted, Pointer Received, Pointer Just Count, Pointer Increment Count, Pointer Dec count, Pointer NDF Count, LOP Count, LOP Seconds, B3/V5 BIP Count, B3/V5 BIP Error Rate, REI Count, Pointer Transmitted, Pointer Received, Signal Label (C2/V5) Signal The tester should have facility to test Label Mismatch, J2-Lower Order Trace Message, J2-Lower Order TM                                       |                       |
| 25     | <b>Logic Category</b>  |                       |
| 25.1   | The tester should have facility to test Pattern Loss Count, Bit Error/TSE Count, Bit Error/TSE Rate, Pattern Slip Count, Pattern Slip Secs, Pattern Loss Count, Pattern Synchronization Loss Secs, Pattern Synchronization Status  |                       |
| 26     | <b>Alarms</b>  |                       |
| 27     | <b>Signal Loss Status</b>  |                       |
| 27.1   | The tester should have facility to test Frame Synchronization Loss Status, Pattern Synchronization Loss Status, MS-AIS, AIS (HP), AIS (LP), LOP (HP), LOP (LP), LOS, OOF, LOF, MS-RDI, LP RDI, HP RDI, MS REI, Regenerator Trace Identifier Mismatch (TIM), High Path Trace Identifier Mismatch (TIM), Low Path Trace Identifier Mismatch (TIM), TUn Loss of Multiframe (n=1/2/3)  |                       |

| Sr. No | Description / details  | Compliance:<br>Yes/NO |
|--------|--|-----------------------|
| 28.1   | The tester should have facility to test A1, A2, J0, J1, D1, D2, D3, C2, H1, H2, H3, G1, B2, K1, K2, F2, D4, D5, D6, , D7, D8, D9, H4, D7, D8, D9, Z3/F3, D10, D11, D12, Z4/K3, S1, Z1, M1/Z2, E2, Z5/N1. |                       |
| 29     | <b>SDH-Lower Order View (AU/VT)</b>  |                       |
| 29.1   | The tester should have facility to test V5, S2, N6, K4   |                       |
| 30     | <b>SOH and POH evaluation</b>  |                       |
| 30.1   | The tester should have facility to test text decode of S and C bytes for the trace identifier. J0 display of 16 byte ASCII sequence. J1, J2 display of 16 or 64 byte ASCII sequence.                     |                       |
| 31     | <b>Tandem connection monitoring (TCM)</b>  |                       |
| 31.1   | The tester should have facility to test analysis of the N1 and N2 bytes, Monitoring/display of: AIS, ODI, RDI, OEI, REI, APId, Incoming B3/Computed BIP Comparison, IEC, TC-UNEQ                         |                       |
| 32     | <b>Performance Measures</b>  |                       |
| 32.1   | The tester should have facility to test G.826 (ISM/OOS), G.828 (ISM/OOS), G.829 (ISM/OOS), M.2101, T1.231, T1.514  |                       |
| 33     | <b>K1/K2 Event Log</b>   |                       |
| 33.1   | The tester should have facility for Date, Time, K1 Value, Code, Channel, K2, Bridge, MSP, Status   |                       |
| 34     | <b>Event Log</b>   |                       |
| 34.1   | The tester should have facility for Event, Date, Start Time, Stop Time, Duration, Value  |                       |
| 35     | <b>Real Time Histogram</b>   |                       |
| 35.1   | The tester should have facility to display Seconds, Minutes, Hours, Days   |                       |
| 36     | <b>Time</b>  |                       |
| 36.1   | The tester should have facility to show Current Date, Current Time, Test Elapsed Time  |                       |

| Sr. No | Description / details   | Compliance:<br>Yes/NO |
|--------|---|-----------------------|
| 37     | The tester should have facility to Generate and measure Jitter on electrical interfaces DS1, E1, DS3, E3.   |                       |
| 38     | Automatic Measurement Sequences   |                       |
| 38.1   | - Maximum Tolerable Jitter (MTJ)  |                       |
| 38.2   | - Measure Intrinsic Jitter  |                       |
| 38.3   | - Jitter Transfer Function (JTF)  |                       |
| 38.4   | Support different Measurement Bands   |                       |
| 38.5   | - High Band   |                       |
| 38.6   | - Wide Band   |                       |
| 38.7   | - Extended Band   |                       |
| 38.8   | - Ability to set user definable band  |                       |
| 38.9   | Common Jitter mask selectable   |                       |
| 38.10  | Ability to create user definable masks  |                       |
| 39     | <b>PDH Jitter Results</b>   |                       |
| 39.1   | The tester should have facility to test Jitter Results per measurement band   |                       |
| 39.2   | Current peak to peak jitter [UI], Peak to peak jitter [UI], Positive peak jitter [UI], Negative peak jitter [UI]  |                       |
| 39.3   | Maximum peak to peak jitter [UI], Peak to peak jitter [UI], Positive peak jitter [UI], Negative peak jitter [UI]  |                       |
| 39.4   | Phase Hits, Percentage of mask, RMS Jitter [UI], Jitter Graphs  |                       |
| 40     | <b>Remote Operation</b>   |                       |
| 40.1   | The tester should have facility to connect remotely via Web browser.  |                       |
| 40.2   | The tester should have facility to run in remote operation.   |                       |
| 40.3   | The tester should not require the installation of client software on a PC for remote operation.   |                       |
| 40.4   | Including Accessories:<br>The test instrument should supply alongwith<br>AC/DC Adaptor with AC Power Cord<br>USER Manual with software<br>E1 Cable<br>SFP for 1310/1550nm<br>Optical Patch Cord LC Type 3mtr long<br>Soft Carrying case |                       |
| 41     | Warranty 3years   |                       |

Annexure - IX

**2 MB PCM Mux Analyzer**

| Sr. No | Description details   | Description sub details                                     | Compliance: Yes/NO |
|--------|---|---|--------------------|
| 1      | General : The 2Mb PCM MUX Analyzer should be hand held with field upgradation module available on same platform, Should have minimum 9 hours of battery life for normal usage when fully charged. Full charging of the battery should not take more than 8 hours of time. OEM make 230 VAC Power Adaptor for Tester operation to be provided. Should have backlit VGA monitor with minimum 3.7" screen or better. Should survive fall from at least 2 meters on concrete on all sides. Should be splash-proof<br>The offered Model must meet each specification |   |                    |
| 2      | The instrument should support Dual Tx and Rx port (Balanced on RJ45 interface) with having upgradation option for Electrical and Optical Ethernet testing   |   |                    |
| 3      | The instrument should have dual color LED indicators for Status/ Alarm Indications for line1/ line2. Current status and alarm history for: signal, code error, frame, AIS, alarm, error, pattern sync and bit error LED indicators. Audible alarm for alarm indication must be available.   |   |                    |
| 4      | Instrument Description  | E1 & Data Tester  |                    |
|        |   | Pulse Shape Analysis  |                    |
|        |   | Level Measurement Option                                    |                    |
|        |   | Datacom analysis  |                    |
| 5      | Provided Accessoris   | Carrying Case   |                    |
|        |   | Downloading Cable (1No.)                                    |                    |
|        |   | Cable: 1x3 Banana - 1XCF CONN.,2000MM                       |                    |
|        |   | Cable: 2XBNC - 75 (M), Z=75, 2000MM                         |                    |
|        |   | V.11/V.36 (RS-449) DTE Adapter Cable                        |                    |
|        |   | V.11/V.35 DTE Adapter Cable                                 |                    |
|        |   | V.24 interface cable: 1x(F) - 2x(M), 1500mm                 |                    |
|        |   | Power Chord (1 No.)   |                    |
| 6      | <b>Features</b>   |   |                    |
| 7      | Line Rates  | E1 and nx64K BERT   |                    |
|        |   | 50 bits/s up to 2048kbit/s, 48 to 512 kbit/s co-directional |                    |
| 8      | Interfaces  | Multi interface capability                                  |                    |
|        |   | V.24/RS 232, V.11/X.24, V.35,V.36/RS 449,                   |                    |
|        |   | G.703 (2048/704kb/s)G.703,co-directional                    |                    |
|        |   | HDB3,AMI, Co Directional                                    |                    |
|        |   | Input mode: Terminate, bridged or monitor mode              |                    |

| Sr. No | Description details           | Description sub details   | Compliance: Yes/NO |
|--------|-------------------------------|---|--------------------|
| 9      | Date com Option               | Available   |                    |
|        |                               | Supports all V interfaces analysis  |                    |
|        |                               | V.24/RS232,V.11/X.24.V.35.V.36/RS 449   |                    |
| 10     | Printer Interface             | V.24 Serial port or USB   |                    |
| 11     | Clock                         | Complied with G.703 transmit clock source 2048kb/s  |                    |
|        |                               | And co-directional;internal, external, from Rx  |                    |
| 12     | Frequency Offset Generation   | Deviation from nominal frequency $\pm 150$ pm in 1 ppm steps.   |                    |
| 13     | Frame Format                  | PCM30,PCM30CRC,PCM31,PCM31CRC, or unframed  |                    |
|        |                               | 1x64 kbit/s,nx64 kbit/s contiguous and non – contiguous   |                    |
| 14     | Test Pattern                  | PRBS 2E6-1,2E9-1, 2E11-1, 2E15-1, 2E20-1, 2E23-1  |                    |
|        |                               | 8 and 16 bit programmable word  |                    |
|        |                               | 1010, 1111, 0000  |                    |
|        |                               | Quick Brown Fox patterns.   |                    |
|        |                               | Monitor mode will monitor live traffic, speech,test tones.  |                    |
| 15     | Errors and Alarm measurements | Bit errors, code error, FAS error, Character error, CRC error, Block error, Parity error, Pattern Sync loss, No Clock, Frame sync loss, MF sync loss, distant frame alarm |                    |
|        |                               | Distant MF alarm, No signal, AIS all zeros, all ones, byte sync loss, byte sync loss, slip, data inverse  |                    |
|        |                               | Results error count, ratio, histogram   |                    |
|        |                               | Utilities unique Gelbrich synchronization for accurate error analysis.  |                    |
| 16     | Performance analyses          | According to ITU-T G.821,G.826, M 2100  |                    |
| 17     | Frequency Measurement         | Measurement rate:50bit/s to 2 Mbit/s  |                    |
| 18     | Delay                         | Range:0 to 10s  |                    |
|        |                               | Resolution:1 us on G.703.2 Mbit/s circuits.   |                    |
| 19     | VF tone and dialing           | Tx frequency range: 50 Hz to 3950Hz   |                    |
|        |                               | Tx level range -55 dBm0 to 3dBm0  |                    |
|        |                               | Rx level measurement -80dBm0 to +5dBm0  |                    |



| Sr. No | Description details              | Description sub details   | Compliance: Yes/NO |
|--------|----------------------------------|---|--------------------|
| 20     | Error Generation                 | Bit, Code, FAS, CRC errors Single, ratio or Frequency   |                    |
| 21     | Alarm Generation                 | LOS,AIS, LOF -possible to simulate all alarms.  |                    |
| 22     | Frame data                       | Simultaneous monitor and generation of the Si, Sa, A and E bit of the NFAS word.  |                    |
|        |                                  | In time slot0   |                    |
|        |                                  | Simultaneous monitor and generation of NMFAS  |                    |
|        |                                  | Monitor and display of: FAS, NFAS,and CRC MFAS word.  |                    |
|        |                                  | Monitor and display of the 8 bit code word in any selected timeslot Channel.<br><br>Associated signaling status of all 30 telephone channels with idle/busy indication. |                    |
| 23     | Synchronization Status Messages. | Indication of Frame, Multi-frame and Pattern sync loss.   |                    |
| 24     | Thru-Mode                        | As RX/TX Plus and/or insert via v.11  |                    |
| 25     | Integrated Loudspeaker           | Integrated loudspeaker for voice/tone monitoring.   |                    |
| 26     | Battery                          | Type Ni CD batteries  |                    |
|        |                                  | Operating time: 8 to 10 hrs operating time  |                    |
|        |                                  | Recharge Time: 0 - 10 hours.  |                    |
| 27     | General Specification            | Weight: 2 kg approx.  |                    |
|        |                                  | Operating temp:0 to 50 C  |                    |
|        |                                  | Storage temp: -40°C to +70 C  |                    |
|        |                                  | EN50081-1-1992  |                    |
|        |                                  | EN50082-1-1992  |                    |
|        |                                  | EN61000-4-2 1995  |                    |
|        |                                  | EN61000-4-3 1996  |                    |
|        |                                  | EN61000-4-4 1995  |                    |
|        |                                  | EN61010-1   |                    |
|        |                                  | IEC 1010-1  |                    |

| Sr. No | Description details                  | Description sub details  | Compliance: Yes/NO |
|--------|--------------------------------------|--|--------------------|
| 28     | Option001 (Advanced Signal Quality). | Rx accuracy.....50Hz to 100 Hz 0.1UI or 10% whichever is greater               |                    |
|        |                                      | 100Hz to 100 kHz 0.05UI or 5%, whichever is greater                            |                    |
|        |                                      | Rx frequency range.....50Hz to 100KHz  |                    |
|        |                                      | TX accuracy.....0.05 UI or 5% whichever is greater.                            |                    |
|        |                                      | TX frequency range.....20Hz to 100 KHz   |                    |
|        |                                      | Tx accuracy.....0.05UI or 5% whichever is greater                              |                    |
|        |                                      | Tx level.....0.083UI to >20UI  |                    |
|        |                                      | Tx frequency range.....20Hz to 100 KHz   |                    |
|        |                                      | Rx accuracy .....50 Hz to 100 Hz 0.1UI or 10% whichever is greater             |                    |
|        |                                      | 100 Hz to 100 KHz 0.05UI or 5%, whichever is greater                           |                    |
|        |                                      | TX accuracy....0.05UI or 5% whichever is greater.                              |                    |
|        |                                      | TX frequency range.....20Hz to 100 KHz   |                    |
| 29     | Measurement Accuracy                 | As stated above.   |                    |
| 30     | Stored Measurement Graphs            | Results will be plotted against ITU masks for MTJ and JTF.                     |                    |
| 31     | Results                              | Plot pass/fail to ITU masks. Provides tabular results as well. Can be printed. |                    |
| 32     | Pulse mask                           | Characteristics 75 ohm Unbalanced  |                    |
|        |                                      | 120 ohm Balanced.  |                    |
|        |                                      | Signal Level display range (signal shape dependant). Approx. -5 to +3dB        |                    |
|        |                                      | Level Measurement  |                    |
|        |                                      | Measurement range (dB) -15 to +2 dB  |                    |
|        |                                      | Accuracy over measurement range $\pm 1$ dB                                     |                    |
|        |                                      | Measurement range (volt) 421mV to 2.98V  |                    |
|        |                                      | 533mV to 3.77V   |                    |
|        |                                      | G.703 nominal level (0dB) 2.37V  |                    |
|        |                                      | 3.00V  |                    |
|        |                                      | Tapping loss @ 1MHz 0.23dB   |                    |
|        |                                      | 0.33dB   |                    |
|        |                                      | Return Loss G.703 75 ohm Unbalanced As defined in                              |                    |
|        |                                      | ITU-T.703 10/98 Sec.9.3  |                    |
|        |                                      | at the input ports 120 ohm balanced Specified.                                 |                    |

| Sr. No | Description details                       | Description sub details  | Compliance: Yes/NO |
|--------|---|--|--------------------|
| 33     | Results                                   | Pass/Fail to mask, Rise time, fall time, pulse width, overshoot, undershoot.                             |                    |
| 34     | Printing                                  | The insturement has abililty to output to an external printer  |                    |
|        |   | up to 60 days of stored results and histograms   |                    |
|        |   | Histogram and numeric results during or after test a one pase combined                                   |                    |
|        |   | Time analysis of all errors and alarms   |                    |
|        |   | Menu setups  |                    |
|        |   | Auto print of G.821 results and errors totals of selectable time intervals, auto print of                |                    |
|        |   | Alarms as they occurs, with start and stop time.   |                    |
|        |   | Auto print of channel associated Signaling four bit code changes as they occur with time and date stamp. |                    |
| 35     | Drop/Insert                               | The digital information in any time slot or nx64 kbit/s timeslot is dropped/inserted                     |                    |
|        |   | via V.11 interface.  |                    |
| 36     | Setup Memory                              | Have internal memory 8 instrument setups.  |                    |
| 37     | Auto Configuration                        | Have the capability to provide auto configuration to circuit under test.                                 |                    |
| 38     | Sensitivty                                | Have input sensitivity 0 to dB   |                    |
| 39     | Error & Alarm Measurements and Generation | Error Injection: Bit,Code,FAS,CRC errors: single,ratio,frequency   |                    |
|        |   | Error and Alarm Indication: LEDs 2 summary,14 alarm/monitor, option, low battery.                        |                    |
| 40     | Warranty                                  | 3years   |                    |

Annexure.X

Dated: .....

To  
The Dy. General Manager (Finance)  
RailTel Corporation of India Ltd. (Regional Office)  
Western Railway Microwave Complex,  
Senapati Bapat Marg,  
Mahalaxmi, Mumbai – 400 013.

Sub. : Option for Payment through RTGS/NEFT

Sir,

You are requested to remit the payment due to us through RTGS/NEFT into our Current Account.

The detail required duly verified by our bank for Online payment is provided here under for needful please.

**DETAIL REQUIRED FOR PAYMENT THROUGH RTGS/NEFT**

|     |                       |           |
|-----|-----------------------|-----------|
| 1.  | Beneficiary Name :    | M/s ..... |
| 2.  | Beneficiary Address : |           |
|     |                       |           |
|     |                       |           |
|     |                       |           |
| 3.  | PAN No.               |           |
|     |                       |           |
| 4.  | Bank A/c No. :        |           |
|     |                       |           |
| 5.  | Name of Bank :        |           |
|     |                       |           |
| 6.  | Bank Branch Address:  |           |
|     |                       |           |
|     |                       |           |
| 7.  | Branch Id Code :      |           |
|     |                       |           |
| 8.  | Current Account No. : |           |
|     |                       |           |
| 9.  | RTGS / IFSC Code :    |           |
|     |                       |           |
| 10. | NEFT/ IFSC Code :     |           |
|     |                       |           |
| 11. | MICR no.              |           |

I do hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, RailTel will not be held responsible. Further, I undertake that till we request a change, paying authority may kindly continue to make the payments in our account as per above detail.

**For .....**

**Verified above Bank Particulars for Online payments**

**Authorised Signatory Contractor**

**Bank's Authorised Signatory**

----- **END OF DOCUMENT** -----