

**DIRECTORATE OF TECHNICAL EDUCATION  
VOCATIONAL & INDUSTRIAL TRAINING  
HIMACHAL PRADESH SUNDERNAGAR  
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**Clarifications to Pre-Bid Queries**

**Project No:** 3573-IND; Himachal Pradesh Skill Development Project

**Name of Goods/Package:** Supply of **Electrical and Electronics related equipment's** for Industrial Training Institutes to enhance Technical and Vocational Skills among the youth of Himachal Pradesh: **HPSDP-DOTE/03 (Package-03)**, comprising of following lots:

**Lot-1:** Electronics Appliances

**Lot-2:** Electronics Lab equipment

**Lot-3:** Electrical Lab equipment

**Lot-4:** Electrical machinery

**Invitation for Bids No.:** 007/2019; Dated: 12/06/2019

**Employer:** The Director, Directorate of Technical Education Vocational and Industrial Training, Circular Road, Lalit Chowk, Sunder Nagar, District: Mandi, Himachal Pradesh - ZIP code: 175018

**Date and Time of Pre-Bid Meeting:** 21<sup>st</sup> June 2019 at 11:30 hrs

Pursuant to Section 1; Instructions to bidders, Sub clause 7, and Section 2; Bid data sheet, Sub clause ITB 7.1 followings are the Purchasers clarifications on the Queries raised by Various Bidders on the bidding document for the aforementioned package:

<b>Sl. NO.</b>	<b>Query raised by prospective bidders</b>	<b>Clarification by DOTE</b>
1.	It is requested to clarify the specification for <b>Item-5 in Lot-2</b> , <i>C.R.O Dual trace/ Double beam.</i>	No Change in Specifications
2.	It is requested to clarify the specification for <b>Item-6 in Lot-2</b> , <i>C.R.O Single beam.</i>	No Change in Specifications
3.	It is requested to clarify the specification for <b>Item-11 in Lot-2</b> , <i>Digital trainer kit.</i>	No Change in Specifications
4.	It is requested to clarify the specification for <b>Item-12 in Lot-2</b> , <i>Discrete Component Trainer.</i>	No Change in Specifications
5.	It is requested to clarify the specification for <b>Item-17 in Lot-2</b> , <i>Function Generator.</i>	No Change in Specifications
6.	It is requested to clarify the specification for <b>Item-18 in Lot-2</b> , <i>Function Generator.</i>	No Change in Specifications

SI. NO.	Query raised by prospective bidders	Clarification by DOTE
7.	It is requested to clarify the specification for <b>Item-36 in Lot-2, Pulse Generator.</b>	No Change in Specifications
8.	It is requested to clarify the specification for <b>Item-37 in Lot-2, Pulse Generator.</b>	No Change in Specifications
9.	It is requested to clarify the specification for <b>Item-38 in Lot-2, Sensor Kit.</b>	<p>Following text</p> <p>“Sensor Kit with Min. following components:</p> <ul style="list-style-type: none"> <li>• Mounting Plate</li> <li>• Power Distribution Box</li> <li>• Counter Box</li> <li>• Indication Box</li> <li>• Material Box</li> <li>• Inductive Sensor</li> <li>• Capacitive Sensor</li> <li>• Magnetic Sensor</li> <li>• Ultrasonic Sensor</li> <li>• Connecting Wires</li> <li>• Motor with Control Unit”</li> </ul> <p>stands amended as</p> <p>“Sensor Kit with Min. following components with Min.:</p> <ul style="list-style-type: none"> <li>• Mounting Plate</li> <li>• Power Distribution Box : 24V DC, 4A</li> <li>• Counter Box : 10-30V DC/0.05A</li> <li>• Indication Box : 24V Dc</li> <li>• Material Box</li> <li>• Inductive Sensor : 10-30 V DC, PNP, NO, 5mm (Range)</li> <li>• Capacitive Sensor: 10-30 V Dc, PNP, NO, 2-8mm (Range)</li> <li>• Magnetic Sensor : 10-60 V DC , PNP, NO, 60mm (Range)</li> <li>• Ultrasonic Sensor : 20-30 V DC, PNP, NO, 80-300mm (Range)</li> <li>• Connecting Wires</li> <li>• Motor with Control Unit: 24V DC,1A”</li> </ul> <p>Rest of the specifications remained unchanged.</p>

SI. NO.	Query raised by prospective bidders	Clarification by DOTE
10.	It is requested to clarify the specification for <b>Item-39 in Lot-2</b> , <i>Sensor Trainer Kit</i> .	No Change in Specifications
11.	It is requested to clarify the specification for <b>Item-42 in Lot-2</b> , <i>Signal Generator with Digital Display for Frequency Amplitude</i> .	Following text " <ul style="list-style-type: none"> <li>• Wide Frequency Range: 20 MHz - 20MHz"</li> </ul> Stands amended as " <ul style="list-style-type: none"> <li>• Wide Frequency Range: 10 Hz - 100 KHz"</li> </ul> Rest of the specifications remained unchanged.
12.	It is requested to clarify the specification for <b>Item-46 in Lot-2</b> , <i>Wheat Stone Bridge</i> .	No Change in Specifications
13.	It is requested to clarify the specification for <b>Item-1 in Lot-3</b> , <i>0-30 V, 2 Amp, Regulated DC Power Supply</i> .	No Change in Specifications
14.	It is requested to clarify the specification for <b>Item-2 in Lot-3</b> , <i>3- Point D.C. Starter</i> .	No Change in Specifications
15.	It is requested to clarify the specification for <b>Item-3 in Lot-3</b> , <i>4- Point D.C. Starter</i> .	No Change in Specifications
16.	It is requested to clarify the specification for <b>Item-22 in Lot-3</b> , <i>Ammeter 300A/ 60A DC with external shunt</i> .	No Change in Specifications
17.	It is requested to clarify the specification for <b>Item-23 in Lot-3</b> , <i>Ammeter 300A/ 60A DC with external shunt</i> .	No Change in Specifications
18.	It is requested to clarify the specification for <b>Item-24 in Lot-3</b> , <i>Ammeter 300A/ 60A DC with external shunt</i> .	No Change in Specifications
19.	It is requested to clarify the specification for <b>Item-25 in Lot-3</b> , <i>Ammeter DC with external shunt</i> .	No Change in Specifications
20.	It is requested to clarify the specification for <b>Item-55 in Lot-3</b> , <i>DC Regulated Variable Programmable DC Power Supply 0 - 30V / 3A</i> .	No Change in Specifications

SI. NO.	Query raised by prospective bidders	Clarification by DOTE
21.	It is requested to clarify the specification for <b>Item-69 in Lot-3</b> , <i>Dimmer starter.</i>	No Change in Specifications
22.	It is requested to clarify the specification for <b>Item-71 in Lot-3</b> , <i>Dual DC regulated power supply.</i>	No Change in Specifications
23.	It is requested to clarify the specification for <b>Item-73 in Lot-3</b> , <i>ELCB and RCCB.</i>	No Change in Specifications
24.	It is requested to clarify the specification for <b>Item-100 in Lot-3</b> , <i>Magnetic Flux.</i>	No Change in Specifications
25.	It is requested to clarify the specification for <b>Item-1 in Lot-4</b> , <i>A.C. Series type Motor.</i>	No Change in Specifications
26.	It is requested to clarify the specification for <b>Item-2 in Lot-4</b> , <i>AC 3 Phase motor with control panel.</i>	No Change in Specifications
27.	It is requested to clarify the specification for <b>Item-3 in Lot-4</b> , <i>AC Motor Trainer Kit ¼ HP motor, Single Phase Contactors, Relays, MCB, DOL Starter.</i>	No Change in Specifications
28.	It is requested to clarify the specification for <b>Item-5 in Lot-4</b> , <i>AC Squirrel Cage Motor with Mechanical Load along with control panel.</i>	No Change in Specifications
29.	It is requested to clarify the specification for <b>Item-11 in Lot-4</b> , <i>Capacitor start induction motor.</i>	No Change in Specifications
30.	It is requested to clarify the specification for <b>Item-14 in Lot-4</b> , <i>D.C. Compound Generator with AC Motor along with control panel.</i>	No Change in Specifications
31.	It is requested to clarify the specification for <b>Item-15 in Lot-4</b> , <i>D.C. Shunt Generator with AC Motor along with control panel.</i>	No Change in Specifications
32.	It is requested to clarify the specification for <b>Item-25 in Lot-4</b> , <i>Generator (DC to AC) set.</i>	Appendix-N. The following Text "

Sl. NO.	Query raised by prospective bidders	Clarification by DOTE
		"Further, Suitable Electrical loading arrangement shall be provided for DC/AC generators for performing experiments." Stands inserted.
33.	It is requested to clarify the specification for <b>Item-26 in Lot-4, Motor-Generator (AC to DC) along with Control Panel.</b>	Appendix-N. The following Text " "Further, Suitable Electrical loading arrangement shall be provided for DC/AC generators for performing experiments." Stands inserted
34.	It is requested to clarify the specification for <b>Item-27 in Lot-4, Oil Testing Kit.</b>	Following text " • Output: Continuously variable from 0 to 50 Kv or 0 to 60 Kv, or 0 to 100 Kv • Capacity: Min. 60 VA" Stands amended as " • Output: Continuously variable from 0 to 50 Kv • Capacity: Min. 500 VA"
35.	It is requested to clarify the specification for <b>Item-28 in Lot-4, Over Current Relay.</b>	No Change in Specifications
36.	It is requested to clarify the specification for <b>Item-29 in Lot-4, Single Phase 220 V Capacitor type AC Meter squirrel cage Induction motor.</b>	No Change in Specifications
37.	It is requested to clarify the specification for <b>Item-32 in Lot-4, Split phase induction motor with Control panel.</b>	No Change in Specifications
38.	It is requested to clarify the specification for <b>Item-36 in Lot-4, Three Phase 50 Hz, 5 HP AC squirrel cage induction motor with star delta starter.</b>	No Change in Specifications
39.	It is requested to clarify the specification for <b>Item-40 in Lot-4, Universal Motor along with control panel.</b>	No Change in Specifications
40.	It is requested to clarify the specification for <b>Item-8 in Appendix – C, Variac for field and armature.</b>	No Change in Specifications
41.	It is requested to clarify the specification for <b>Item-8 in</b>	No Change in Specifications

Sl. NO.	Query raised by prospective bidders	Clarification by DOTE
	<b>Appendix – D</b> , Variac for field and armature.	
42.	It is requested to clarify the specification for <b>Item-1 in Appendix – D</b> , 4-point starter for DC Motor.	No Change in Specifications
43.	It is requested to clarify the specification for <b>Item-6 in Appendix – F</b> , HRC fuses Bakelite type base.	No Change in Specifications
44.	It is requested to clarify the specification for <b>Item-8 in Appendix – G</b> , HRC fuses Bakelite type base.	No Change in Specifications
45.	It is requested to clarify the specification for <b>Item-7 in Appendix – H</b> , (AC side) RPM Meter	No Change in Specifications
46.	It is requested to clarify the specification for <b>Item-6 in Appendix – H</b> , (AC side) HRC fuses Bakelite type base	No Change in Specifications
47.	It is requested to clarify the specification for <b>Item-5 in Appendix – I</b> , Frequency Meter	Frequency meter is needed “for supply frequency”
48.	It is requested to clarify the specification for <b>Item-7 in Appendix – J</b> , HRC fuses Bakelite type base	No Change in Specifications
49.	It is requested to clarify the experiments to be performed on <b>Electrical Machine Trainer and Generator set up in Appendix – K</b>	<p>The Trainer shall be suitable for demonstrating construction, functioning of machines mentioned in specifications.</p> <p>Minimum experiments to be performed are as follows:</p> <p>For Motors:</p> <p>Speed torque curves of all the Motors. Further, speed torque curves for Induction motor with rotor shorted &amp; with different rotor resistance, and with DOL/star delta starters. Application of Synchronous motors as PF improvement. Also, Running characteristics, No-Load Test, Blocked Rotor, Load Test, Measurement of Slip in a case of Induction Motor.</p> <p>For generators:</p>

Sl. NO.	Query raised by prospective bidders	Clarification by DOTE
		Its Operational Working Principle <ul style="list-style-type: none"> <li>• short circuit characteristics</li> <li>• open circuit characteristics</li> <li>• Study and measure of voltage regulation Etc.</li> </ul>
50.	It is requested to clarify the specification for <b>Item-5 in Appendix – L</b> , (AC side) <i>HRC fuses Bakelite type base</i>	No Change in Specifications
51.	It is requested to clarify the specification for <b>Item-6 in Appendix – L</b> , (AC side) <i>RPM Meter</i>	No Change in Specifications
52.	It is requested to clarify the specification for <b>Item-5 in Appendix – M</b> , <i>HRC fuses Bakelite type base</i>	No Change in Specifications
53.	It is requested to clarify the specification for <b>Control Panel Board in Appendix – N</b> .	The Following Text " Control panel board shall consist of high grade FRP material or better material in compliance with relevant IS/IEC safety standards." Stands amended as "Control panel board shall consist of high grade FRP or better material in compliance with IS 302 or IEC60335 or equivalent IS /IEC safety standards." The following Text: "The Electrical Control Panel dimensions: Minimum size of size Length = 900 mm; Depth = 250 mm; Height = 750 mm." stands amended as "The Electrical Control Panel dimensions: Minimum size of size Length = 900 mm; Depth = 250 mm; Height = 750 mm. However, for a standard manufactured product of standardized size, bidder to provide test reports complying IS/IEC safety standards."
54.	It is requested to clarify the specification for <b>Item-11 in Appendix – K</b> , <i>DC compound Generator of 1 KW, separately excited with field variac coupled with Suitable AC motor.</i>	Appendix- K point no. 11 text "DC compound Generator of 1 KW, separately excited with field variac coupled with Suitable AC motor." Stands amended as

Sl. NO.	Query raised by prospective bidders	Clarification by DOTE
		<i>"DC Shunt Generator of 1 KW, separately excited with field variac coupled with Suitable AC motor."</i>
55.	It is requested to clarify the specification for <b>Item-54 in Lot – 1, UPS Trainer kit</b>	No Change in Specifications/Lot
56.	It is requested to clarify the specification for <b>Item-1 in Lot – 2, 20 MHz Dual Trace Oscilloscope</b>	No Change in Specifications/Lot. Please refer to the note below.
57.	It is requested to clarify the specification for <b>Item-29 in Lot – 2, 20 MHz Dual Trace Oscilloscope</b>	No Change in Specifications/Lot Please refer to the note below.
58.	It is requested to clarify the specification for <b>Item-5 in Lot – 2, C.R.O Dual trace/ Double beam</b>	No Change in Specifications/Lot. Please refer to the note below.
59.	It is requested to clarify the specification for <b>Item-26 in Lot – 2, Multi Scan Tool with oscilloscope</b>	No Change in Specifications/Lot
60.	It is requested to clarify the specification for <b>Item-27 in Lot – 2, Multi Scan Tool with oscilloscope</b>	No Change in Specifications/Lot
61.	It is requested to clarify the specification for <b>Item-31 in Lot – 2, PCI Slot Testing Tool</b>	No Change in Specifications/Lot
62.	It is requested to clarify the specification for <b>Item-32 in Lot – 2, PCI slot Testing tool</b>	No Change in Specifications/Lot
63.	It is requested to clarify the specification for <b>Item-33 in Lot – 2, Post error debugging card</b>	No Change in Specifications/Lot
64.	It is requested to clarify the specification for <b>Item-41 in Lot – 3, BLDC motor with controller</b>	No Change in Specifications/Lot
65.	It is requested to clarify the specification for <b>Item-97 in Lot – 3, LED lighting system</b>	No Change in Specifications/Lot
66.	It is requested to clarify the specification for <b>Item-127 in Lot – 3, Reverse current Relay</b>	No Change in Specifications/Lot
67.	It is requested to clarify the specification for <b>Item-142 in Lot – 3, Solar panel with Battery</b>	No Change in Specifications/Lot



SI. NO.	Query raised by prospective bidders	Clarification by DOTE
68.	It is requested to clarify the specification for <b>Item-165 in Lot – 3, Under Voltage Relay</b>	No Change in Specifications/Lot
69.	It is requested to clarify the specification for <b>Item-19 in Lot – 4, Diesel Generator set</b>	No Change in Specifications/Lot
70.	It is requested to clarify the specification for <b>Item-20 in Lot – 4, Dual Magnetization Yoke</b>	No Change in Specifications/Lot
71.	It is requested to clarify the specification for <b>Item-21 in Lot – 4, Dual Magnetization Yoke</b>	No Change in Specifications/Lot

**Note:** Bidders may refer Section 1 ITB Clause 18.2 and 18.3 for further deviation and improvement in specifications.

Date:03/07/2019

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Director