No. 2(9)/SAI/ES/SS-HPL/2015-16/IFB-046/57/350 Dated: 18.11.2015

Corrigendum – 01

Sub: **Invitation for Bid No. 2(9)/SAI/ES/SS-HPL/2015-16/IFB-046 for Supply of Sports Science Equipment for HPL at JNS due for opening on 19 November 2015.**

Consequent to suggestions received in the pre-bid meeting held on 29.10.2015, following amendmentd are here by authorised to the subject Invitation for Bid.

1. **Critical Date Sheet – Section – I and at Covering Page**

	For	Read
Bid Submission Date	18 November 2015	28 November 2015
Bidf Opening Date	19 November 2015	30 November 2015

2. **Section- VI – Technical Specifications – Against items No. 1, 2, 3, 4, & 5**

For:- Existing Entries

Read:- As under

Item No.	Description of Article	Generalized & Broad based Technical Specifications	Qty
1.	**Anthropometry**		
i.	**Anthropometric Set**	Anthropometric Set should contain: • Anthropometer • 4 metallic rods • Skinfold Caliper • Spreading Calipers (Large) and • Spreading Calipers (Small) • Measuring tape • **All above in a case**	04
ii.	**Sit and Reach Test Box**	• Equipment to Test flexibility of the lower back and Hamstring muscles • Scales in inches and centimeters. • Sturdy one box assembly	04
iii.	**Skinfold calipers**	• Range: 90 mm • Accuracy: 0.2 mm • Graduation: 0.1 mm	04
iv.	**Height-weight and BMI**	• To measure the height, weight and BMI of the players • Height Range upto 200cm & above • Graduation 1mm • Provision for FH Plane will be desirable • Automatic calculation of BMI • CE Certified /FDA Approved	04

2.	**Nutrition**		
i.	Activity Watch for Calculating Energy Expenditure	**The watch should be** • Water proof, battery operated and Light weight (less than 35 gm) • Rechargeable battery / battery with maximum life • Capable of recording 24-hr sleep-wake activity; recording sleep variability, quality and quantity of sleep. • Capable of recording day time activity pattern • Capable of simultaneously monitoring, analyzing and storing data of sleep wake activity for > 24hrs continuously • Should have capability of monitoring luminous flux and irradiance • Should have provision for interface with PC for data download, post processing and print out • Should have moisture protection and increased resistance to environmental challenges • US FDA Approved / European CE Certified	10
ii.	Body Composition Analyzer (Compact Size)	The Equipment should be able to assess Weight: upto 200kg Height: upto 200 cm Age range: 5 and above Parameters: BMI; Body Fat percentage; Skeletal Lean Mass; BMR; TEE; Body Type and Segmental measurement Tactile mode US FDA Approved / European CE Certified	01
3.	**PHYSIOLOGY**		
i.	**Physiological Status Monitoring (PSM) System with professional software**	• The Equipment should be able to measure Heart rate, breathing Rate, estimated core temperature, posture, activity level, peak acceleration, The machine should have machine washable strap that offers comfort and accuracy • Long Transmission Range (upto apprx. 100 ft) • The system should measure activity level, peak acceleration. Heart rate, R-R Interval, Breathing Rate, Posture and others. • Operating temparture range : -10°C to + 60°C • Should include laptop with latest hardware configuration & software compatibility to measure 30 subjects simultaneously. • Memory capacity for 30 days, Internal memory atleast 2 GB, Battery backup and life 10-12 hrs (min.) • US FDA Approved / European CE Certified	01
ii.	**Spirometer**	• System should be computerized and complete lung function analysis by measuring SVC, FVC, and MVV for both pre and post medication and interpretation. • Oxygen Saturimetry with interated SpO2 monitor • Should have predicated normal value for Indian standards. • System should include printer to provide documentation of test results including graphic forms and measurements. • Should be portable unit (light weight) and should be P.C. compatible with latest configuration for data transfer & storage. • Internal data storage capacity for minimum 50 subjects • Machine performs inspiratory and expiratory pulmonary function tests with choice of predicted normal such as Indian and other ethnic population. • Measure following sub-parameter FVC: FEV 0.5, FEV 1.0, FEV 0.5/FVC, FEV 1.0/FVC,FEV 3.0/FVC, FEF 25 – 27 %, FEF 75-85 %, FEF, MEF 75 %, MEF 50 %,MEF 25%, FIVC, FIV 1.0, FIV 1.0/FIVC FIV 1.0/FVC, PIF, MIF 50 % SVC: SVC ERV, IRV, TV MV: MV, RR, TV MVV:MVV, RR, • Safety standard IEC60601-1-1 • CE Certified / FDA Approved. • **Accessories:- should be supplied with complete accessories**	01

iii.	**Lactate Analyzer**	Test: Lactate in whole blood • Sample Volume: approximate 5 micromole • Measuring Range: 0.4-24 micromole • Measuring Time: 10-60 sec (maximum) • Sensor /Membrane Lifetime: min. 30 days or 400 sample • Internal memory : min. 600 data, with internal check facility • Portable to use in the field. • Running to be included for 5 years • CE Certified / FDA Approved	01
4.	**Physiotherapy**		
i.	Radial Shock Wave Therapy	1. Large color touch screen for parameters display with pre set indicators 2. Omit 3. Should have integrated VAS Scale 4. Compressor free ballistic radial shock wave therapy system with electromagnetic generator as projectile accelerator 5. Should have selective energy levels values 60-185 mJ or more 6. Selective frequencies 01-16 Hz and burst mode for trigger points 7. Should have negative & positive shock wave counter 8. Shock wave applicator hand piece along with forced fan cooling 9. Different size of applicator tip with minimum facility of 6- 15 mm diameter with tool free exchange 10. Should have facility for up-gradation of software / pre set programs 11. Power consumption 100/240 VAC/ 50/60Hz , 5/2,5A 12. US FDA Approved / European CE certified	01
ii.	Fluido Therapy	1. Should have heavy duty construction. 2. Should have even temperature control 3. Should have over heating safety sensor 4. Should have comfortable rounded openings , soft underarm supports 5. Should have high visibility digital thermometer ensuring proper temperature 6. Should have adjustable agitation rate for directed control of fluid like whirlpool effect 7. Should have adjustable time operation up to 60 min 8. Should have heat range control to specify temperature 9. Should have easy to remove panels for simple maintenance and repair if required 10. Should be supplied by sterilized replacement Celstim 11. US FDA Approved / European CE certified	02
iii.	Combination Therapy Unit	1. Should have all low and medium frequency current form including Galvanic, Biphasic, IFT, Russian, High Voltage, Micro Currents etc 2. Independent channels for synchronized , Alternate, separate treatment for agonist / antagonist treatment or different site treatment 3. Should display _____ current form used on screen , e,g- efficacy in Hypermia, analgesia, strengthening , relaxation etc 4. Should have inbuilt special programs for Sports Rehab, Endurance Training on priority. 5. Should have more than 100 programs 6. Should have multi frequency ultrasonic therapy unit. 7. Should have possibility of setting the desired depth of penetration with using both frequencies for Ultrasound 8. Transducer head should be water resistant with audio visual contact indicator 9. Should have disease wise programs and manual program to work for 10. Should have color touch screen monitor for better control and ease of operation.	02

		11. On screen help for various common diseases should be available 12. Expandable SD Memory 13. Should have set of standard accessories. 14. US FDA Approved / European CE certified	
iv.	Deep Heat Therapy System "TECAR"	1. Should have emission of 400-500 Khz with Resistive and capacitive mode 2. Should permit to use both the capacitive mode and resistive mode with same electrode 3. The capacitive mode to treat low resistant tissues , like muscular tissues 4. Resistive mode to treat bone tissues , ligaments , tendons etc 5. Should have full range of pre-set programs for the treatment of the main articular muscular related pathologies and pain syndromes 6. Should have color touch screens display for ease of operation 7. Should have easily changeable electrodes tips of small , medium and large size to suite different treatment area and various size of reference electrode 8. Should have power output of 120 W or more 9. Should have coupling test system for capacitive and resisted therapy 10. Should have set of standard accessories. 11. US FDA Approved / European CE certified	01
v.	Heat therapy Unit with Vibration & Magnetism (Omit)	1. The system should have combination therapy unit with Heat , magnetic force and micro vibrations 2. The system should have touch buttons operation and LED Display 3. The system should consist of four channels unit with 04 super magner packs with cover in two size for simultaneous use 4. It should have flexible heating pads giving dry heat 5. The heating pads should have 04 steps temperature control from 35-60 in 04 steps . Maximum should not exceed 60 in view of patient safety. 6. It should provide vibrations along with flexible heating 7. The system should have three different types of micro vibrations Ripple wave (60-100 vibrations/sec) Random wave (100-120 vibrations/sec) Big Wave (50-60 vibrations/sec) 8. It should provide magnetic force for improving Blood Flow. 9. Micro vibrations should be from alternating magnetic field 10.The system should comply with International safety standards 11. **The equipment should be supplied with -** Standard hot pack with cover - 02, Large hot pack with cover – 02, Belts Large -02, Belts small- 02, Trolley- 01, Magnet detector- 01. Accessories should include separate hot pack for Knee, Shoulder, and Cervical 12 . US FDA Approved / European CE certified	01
vi.	Laser	1. Wave lengths – 810nm &980 nm performing Simultaneously 2. Max Power – 7000 mW 3. Continuous pulse mode. 4. Built in calibration system 5. Large touch screen display 6. Memory Function for favourite Therapies 7. SD-Card for Upgradation or Memory or Services 8. Various spacers to cover larger areas 9. US FDA Approved / European CE certified	1

5.	**Psychology**		
i.	Computerized SPORTS VISION TRAINING	• Advanced scientific instrument developed to help athletes and train eye-hand coordination and decision making skills. • There should be colour LED option. Each LED can be programmed to turn on in a Red, Green or Blue light. • System should be able to personalise the colour of the LED. (Yellow, orange or blue light LED). • System should have ability to program two lights to appear simultaneously as a specific design for sports where both hands are used to perform a task • CE Certified / FDA Approved	01
ii.	Neuro-balance training by visual stimulation	• System should be capable to measure balance and coordination. Limit of stability, range of motion, proprioception and Research. Should be based on load cell. • System should be computerized and international standard. • System should have facilities to measure functions such as balance, coordination core stability measured with eyes open and closed and therefore objectively assessable and visualize progression. • Multi (six or more) screens training program to train the client balance, body awareness and mastery as well as various other coordinative,concentrative and motor skills. • System should have A comprehensive evaluation module Have facilities for Evaluation statements on the ability to coordinate with specific impulses of its movement and to keep his balance. The results are presented meaningful in a graphical and statistical way. • Deleted • System should be international standard and European CE /ISO certified. • System should be complete with all the software and accessories and dedicated PC with latest configuration to support software and printer. • CE Certified US/FDA Approved	01
iii.	Telemetry Biofeedback / Neurofeedback	• 10 channel biofeedback system (2 interface of 5 channels each) – EMG, EEG, HR,HRV,GSR,Respiration, Temperature, Skin Conductance etc. • Sensor should have facility for self – impedence, battery operated (portable) • Rechargeable battery • System should have facility for real time recording, telemetry data recording & on flash memory • Strong & rugged sensor for use in various conditions. Sensors should be reusable • Multi screen analysis & operating software as per user requirement • Software should be compatible with Windows 7 / XP / Vista / 2000 with a compatible laptop with colour printer • Telemetric transmission – atleast 100 mtrs • Preloaded training modules for relaxation training, respiration training, temperature training, stress management etc • Multiple feedback for the subjects like lines, pictures, videos & audio feedback (Head Phones) • System should comply ISO, CE & FDA with all International electrical safety standards. • Dual screen mode for trainee & trainer • European CE Certified US/ FDA Approved	01

All other entries of IFB will remain unaltered.

(R. Saxena)
Dy. Director (ES)
For and on behalf of the Director General, SAI

Copy to:

1. ED (Teams & ES) for information please.
2. ED (Finance) – This issues with the approval of ED (Teams & ES)
3. SSO, Medical Centre, JNS.
4. AD to DG, SAI for information please.
5. As per the list of likely suppliers.