

No.4-2 (7)/2014/DD-I
Government of India
Ministry of Social Justice & Empowerment
Department of Disability Affairs

Shastri Bhawan, New Delhi
Dated the 23rd July, 2014

OFFICE MEMEORANDUM

Subject: Aids/devices approved for Visually Impaired for financial assistance under revised ADIP Scheme-forwarding of.

The undersigned is directed to say that the Scheme of Assistance to Disabled Persons for purchase/fitting of aids/appliances (ADIP), administered by the Department of Disability Affairs has been revised w.e.f. 01.04.2014.

2. Para 7: Quantum of Assistance, sub-para (ii) of the Scheme is as under:

“For providing modern assistive devices for all categories of PwDs both physical and mental and multiple disability impaired groups, e.g. Daisy Book players and other Talking Devices, Net Book Laptop and Digital Magnifiers for visual impairment and Behind the Ear (hearing aid) for hearing impairment, the items will be decided by an Expert Committee constituted in the Department of Disability Affairs with the approval of Minister for Social Justice & Empowerment.....”.

3. Accordingly an Expert Committee was constituted in the Department under the Chairpersonship of Secretary (DA) vide Order dated 11.04.2014 to decide and list out modern assistive devices for all categories of Persons with Disabilities (PwDs) under the revised ADIP Scheme. The Expert Committee held its First Meeting on 07.05.2014 in which 2 Core Groups were constituted, one for Hearing Impaired and the other for Visually Impaired for listing out the devices for Hearing Impaired and Visually Impaired, respectively.

3. The Core Group for Visually Impaired in its meeting held on 23.06.2014 and the following lists have been finalized for financial assistance under revised ADIP Scheme:

- (i) List of 51 assistive devices showing indicative price, specifications and source of procurement meant for Visually Impaired as at **Annexure-I**.
- (ii) Category-wise Kits for Visually Impaired, showing indicative prices and source of procurement as at **Annexure-II**. These are Kit-1: For Primary School Children studying in Class 1 to 5, Kit-2: For Upper Primary School Children studying in Class 6 to 8, Kit-3: For Senior Secondary School students studying in Class 9 and 10, Kit-4: For students studying in Class 11 and 12 which has 2 sub-parts viz. Kit-4 (A) for Blind students and Kit-4 (B) for low vision students, Kit 5: For College Students which has 2 sub-parts i.e. Kit-5 (A) for Blind Students and Kit-5 (B) for low vision students and Kit-6: ADL Kit for Adults. Annexure-II also contains list of Common Low Vision Devices and list of High-end & Other Common Devices meant for visually impaired.

4. Aids/devices showing indicative price, specifications and source of procurement as contained in Annexure-I & II for Visually Impaired have also been approved by the Ministry in consultation with the Integrated Finance Division of the Ministry. All Implementing Agencies of ADIP Scheme may kindly see for information and appropriate action.

Encl: As above



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1. **Principal Secretary/Secretary, Department Social Welfare of States/UTs**
2. **All Implementing Agencies**

Copy to:

1. PS to Hon'ble Minister (SJ&E)
2. PS to Hon'ble MoS (SJ&E)
3. PPS to Secretary (DA)
4. PS to JS (DA)
5. PS to JS & FA

Annexure-I

List of assistive devices for Visually Impaired for financial assistance under the revised ADIP scheme.

S.No.	Name of the item	Specifications		Indicative cost	Source
1	Smart cane	<p>Type I: Normal cane for average height users</p> <p>A set of 5 pieces are as follows:</p> <p>Top pipe: 230mm</p> <p>Second pipe: 230mm</p> <p>Third pipe: 230mm</p> <p>Fourth pipe: 230mm</p> <p>Bottom pipe: 205mm</p>	<p>Type II: Longer cane for tall users</p> <p>A set of 5 pieces are as follows:</p> <p>Top pipe: 230mm</p> <p>Second pipe: 230mm</p> <p>Third pipe: 230mm</p> <p>Fourth pipe: 230mm</p> <p>Bottom pipe: 230mm</p>	<p>Rs. 3000/-</p>	<p>M/s Phoenix Medical Systems Pvt. Ltd. Chennai (Proprietary item - to check & certify before procurement)</p>
		<p>A. Other pipe specifications</p> <p>1. Aluminium pipe of designation 19500 in accordance with IS-3965-1969.</p> <p>2. Other pipe dimensions:</p> <ul style="list-style-type: none"> • Out diameter: 12.8mm (+0.1/-0.05 mm) 			

	<ul style="list-style-type: none"> • Inner diameter: 10.22mm • Thickness: 1.2mm <ol style="list-style-type: none"> 1. The device should be mounted on the white cane and capable of detecting obstacles using sensors, from the knee-height up to the head height of the user. 2. The device should be capable of detecting obstacles, in front while tapping the cane, up to 3m further away from it. The user should have the option to reduce that detection range with the help of a switch. 3. Capable of conveying information about the obstacles distance with at least three different patterns of vibrations that vary with distance. 4. The device should be mounted on the white cane without increasing the original length of the white cane beyond a maximum of 50mm. it should allow the string on the top fold of the white cane to be retained and to be used for folding the entire unit attached to the cane. The device needs to be supplied mounted on the white cane with in two different heights: 44 inches and 48 inches with either 05 or 06 folds each. While mounted, the cane should still be foldable. 5. The user should be able to mount or detach the device to the cane without sighted assistance. The user should be able to adjust the angle of the sensors according to height of the user and angle
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		<p>of inclination of the white cane.</p> <ol style="list-style-type: none"> 6. The device should have the sensitivity to detect at continuous rod of 30mm diameter at 3m in front of the device. 7. Built-in Rechargeable battery with at least 08 hours of use on a single charge. 8. Both the white cane and the sensor device together should be usable with a single hand only, keeping the other hand free 9. The total weight of the device (excluding the cane) should not exceed 150 grams. 10. The device must be accompanied with a user manual explaining functionality and use in accessible audio Daisy format 		
2	Snake and Ladder with dice	<p>Made of seasoned shisham wood 1st quality fitted with MDF board 1st quality with 2 types 4 each colour wood coins as per sample. Snake & Ladder board Outer size - 475 mm square Inner size - 455 mm square Thickness - 22 mm square Fitted with MDF board 6mm thickness with groves 4 mm width, 1.5 mm depth having 100 nos. square with 40 mm with Braille number 1 to 100 on the square with 2 nos hole 4.2 mm for coins with fitted 8 nos. snake & 07 nos. ladders as per sample complete with laker polish.</p>	1000/-	NIVH
3	Dice Plate	<p>Dice Plate made of Ply board 1st quality ISI mark Size - 200 mm square Thickness - 19 mm with dice box 75 mm x 75 mm x 70mm with fitted revolving hexagonal dice with 1 to 6 number as per sample complete</p>	400/-	NIVH

4	Ludo with dice with laker polish	Ludo with dice made seasoned shisham wood 1 st quality fitted with MDF board 1 st quality with 4 types 4 each colour wood coins as per sample Ludo board outer size – 475mm Inner size – 455 mm Thickness – 22mm fitted with MDF Board 2.5 mm upper sheet with playing & resting square with holes 4.2 mm and 6 mm MDF board laker base sheet complete with colour, laker polish as per sample.	1000/-	NIVH
5	Signature guide with rupee checker and wallet	<ul style="list-style-type: none"> • Set of two non-electronic pieces that would help persons with blindness identify currency • Piece one: Made of rigid plastic with signature guide slot and cuts for currency measurement that fits easily in pocket. • Piece 2: made of flexible material with cuts for currency measurement that fits well in both men and women wallets • Both pieces must identify all denominations from Rs5 to Rs. 1000 • To be supplied with matching wallet for women 	150/-	NIVH, Saksham Trust
6	Braille watch / Quartz Braille watch (ladies and gents)	<ul style="list-style-type: none"> • Quartz watch with two hands for minutes and hour easy to open lid from 6 o'clock position • Combination of two tactile dots to denote numbers 3, 6 and 9; combination of three tactile dots for number 12 and single tactile dot for rest of the numbers. • made of high grade stainless steel • leather strap 	1200/-	Open Market

7	Talking wrist watch	<ul style="list-style-type: none"> • Time and Date Announcement. • Four Talking Alarms • Full talking support for time and alarm setup • Talking Stopwatch • Hourly Time Announcement - lets you hear the time every hour <p>All features of setting time, alarm etc. should be usable with voice output</p>	600/-	Open Market
8	Smartphone with screen reading software for persons with blindness	<p>Smart phone specifications</p> <ul style="list-style-type: none"> → Ram- 1GB → Display Specification- Minimum 4 inch display capacity → Android- 4.2.2 or higher / IOS 6.0 or higher → 3.5 inch jack for headphone/hands-free earphones. → 2GB internal memory, expandable up to 16 GB → Battery Capacity- at least 2400 MAH → 8 mp camera → Must have GPS, WI-FI and Bluetooth → Supports screen reading software, TTS installed in English and Hindi 	10000/- 12000/- for Student with Disabilities	Open Market

9	Smartphone with app vision phone specifications	<ul style="list-style-type: none"> → Should be connected with Android Marketplace or Apple App Store Should be supplied along with following application with that work with screen reading software: → Daisy and/or EPUB Book Reader Application capable of connecting with ONLINE LIBRARY. → Word Processor Application → Mail Client and Web Browser Application Phone dialer Messaging Contacts → Ram- 1GB → Display Specification- Minimum 4 inch display capacitive → Android- 4.2.2 or higher / IOS 6.0 or higher → 3.5 inch jack for headphone/hands free earphones. → 2GB internal memory, expandable up to 16 GB → Battery Capacity- at least 2400 MAH → 8 mp camera → Must have GPS,WI-FI and Bluetooth → Supports screen reading software, TTS installed in English and Hindi → Should be connected with Android Marketplace or Apple App Store Should be supplied along with Magnifier application with following specifications: 	10000/- 12000/- for Student with Disabilities	Open Market, Saksham Trust
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10	Pocket size external keyboard for smart phone or tablet	<ul style="list-style-type: none"> → Magnification support up to 5x → Colour Contrast support normal and black on white → Ability to capture photograph and magnify <ul style="list-style-type: none"> → Maximum size 3.5 X 2.5 inches → Telephone style numeric keypad with additional buttons for functions → Bluetooth connectivity with phone and tablet with connectivity distance from the device up to 8 metres. → Inbuilt chargeable battery with backup of at least 8 hours per charge → Automatic Bluetooth Pairing with known/previously paired devices. 	5000/-	Open Market
11	Mouse-cum-Video Magnifier	<ul style="list-style-type: none"> • Computer Mouse shape camera unit Compatible with any TV/Monitor with a RGB Video Input • Three (3) Viewing Modes: <ul style="list-style-type: none"> ○ Full Colour ○ High-Contrast Positive (Black on White) ○ High-Contrast Negative (White on Black) • Seven Levels of Digital Magnification <ul style="list-style-type: none"> ○ 17.5x to 70x Digital Zoom on a 20" TV/Monitor ○ Larger TV/Monitor may Increase Level of Magnification • Ability to Freeze and De-Freeze current image • magnification should be controlled with Gliding Wheel Mechanism • Easy to Use - Plug and Play 	10000/-	Open Market
12	Hand held electronic video magnifier	<ul style="list-style-type: none"> Hand held electronic video magnifier up to 5 inches <ul style="list-style-type: none"> • Magnification up to 10 X • 3.5 inch or higher TFT LCD display 	10000/-	Open Market

		<ul style="list-style-type: none"> • clear image no grid or blur • COLOR MODES and contrasts <ul style="list-style-type: none"> ○ Black on white ○ White on black ○ Blew on yellow ○ Yellow on blue • auto-brightness adjust • USB port for charger plug-in • Video out for input on LCD and monitors 		
13	Spectacles	Spectacles Frames with metallic and spring loaded frame fitted with English white lenses/glass (+ -) different numbers. Spectacles cover and cleaning cloths are free of cost.	110/-	Open Market
14	Need based optical and non optical devices			NIVH, Open Market

Optical Magnifiers of 16D, 20D, 24D, 28D

- a. Stand Magnifiers + 16D, +20 D,+ 24 D & + 28 D* 500/-
- b. Spectacles Aspheric Lenses 16D, +20 D,+ 24 D & + 28 D* 700/-
- c. Illuminated Hand Held Magnifiers 16D, +20 D,+ 24 D & + 28 D * 1500/-

* For low vision - one may require 1 or 2 or 3 items

16 D Magnifier-

Properties	Surface RI/R2
Material	Optical Grade Polycarbonate

Clear Aperture	45
Power (Ring/Pv)	6
Irregularity (fringe)	2 ring
Cosmetic Quality / Ra	60-40
EDGE Chamfer	0.45 x 25.0
Eccentricity	2'

Conic Surface	Base Radius (Conic surface)	Conic Constant (K)
R2*	71.160 (VEX)	-7.279962

20 D Magnifier-

Properties	Surface R1/R2
Material	Optical Grade Polycarbonate
Clear Aperture	45
Power (Ring/Pv)	6
Irregularity (fringe)	2 ring
Cosmetic Quality / Ra	60-40
EDGE Chamfer	0.45 x 25.0
Eccentricity	2'

Conic Surface	Base Radius (Conic surface)	Conic Constant (K)
R2*	46.77 (VEX)	-3.171162

24 D Magnifier-

Properties	Surface R1/R2
Material	Optical Grade Polycarbonate
Clear Aperture	45
Power (Ring/Pv)	6
Irregularity (fringe)	2 ring
Cosmetic Quality / Ra	60-40
EDGE Chamfer	0.45 x 25.0
Eccentricity	2'

Conic Surface	Base Radius (Conic surface)	Conic Constant (K)
R2*	34.84 (VEX)	-2.007178

28 D Magnifier-

Properties	Surface R1/R2
Material	Optical Grade Polycarbonate
Clear Aperture	45
Power (Ring/Pv)	6
Irregularity (fringe)	2 ring
Cosmetic Quality / Ra	60-40
EDGE Chamfer	0.45 x 25.0
Eccentricity	2'

Conic Surface	Base Radius (Conic surface)	Conic Constant (K)
R2*	27.75 (VEX)	-1.509501

Notes-

- > All dimensions are in mm
- > Tolerance on CI± 0.05 mm

Optical layout & Datasheet of the magnifiers

S.No	Name of the item	Specifications	Indicative cost	Source
15	Tablet	<ul style="list-style-type: none">→ Ram- 1GB→ Display Specification- 7.0 inch display capacitive→ Android- 4.2.2 or higher / IOS 6.0 or higher→ 3.5 inch jack for headphone/hands-free earphones.→ 2GB internal memory expandable up to 16GB or higher→ Battery Capacity- Playtime up to 10 hours→ Should be connected with Android Marketplace or Apple App Store→ Must have GPS, WI-FI and Bluetooth connectivity→ Built in speaker and Microphone→ Supplied with Wired or Bluetooth keyboard→ Must Support screen reading software with TTS installed in English and Hindi→ Voice Recognition support for Indian-	Rs. 10000/-	Open Market

		<p>English</p> <ul style="list-style-type: none"> → Must be supplied with following applications usable with screen reading software: → Daisy and/or EPUB Book Reader → Application capable of connecting with ONLINE LIBRARY. → Word Processor Application → Mail Client and Web Browser Application 	
16	Tablet of individual devices	<ul style="list-style-type: none"> → minimum 4 inch capacitive display → Android- 4.2.2 or higher / IOS 6.0 or higher → 3.5 inch jack for headphone/hands-free earphones. → 16GB or higher storage → Minimum Battery Capacity- Playtime up to 10 hours → 5.0 or higher mp Camera <p>Should be connected with Android Marketplace or Apple App Store</p> <ul style="list-style-type: none"> → Must have GPS, WI-FI and Bluetooth connectivity → Built in speaker and Microphone → To be Supplied with Wired or Bluetooth keyboard <p>Must Support screen reading software with TTS installed in English and Hindi</p> <p>Automatic switching of TTS according to the language of the text</p> <ul style="list-style-type: none"> → Voice Recognition support for Indian-English → Must be supplied with following 	20000/-
			Open Market

	<p>applications usable with screen reading software:</p> <ul style="list-style-type: none"> → Daisy and/or EPUB Book Reader Application capable of connecting with ONLINE LIBRARY. → Word Processor Application → Mail Client and Web Browser Application → Dual Core A5 or higher chip → Must support connectivity with online book store with reading granularity of word, sentence, paragraph and pages through screen reading software <p>Must support spelling of word in book reading and word processing applications using screen reading software</p>	
17	<p>Daisy player with one additional speaker (Basic model)</p>	<p>9000/-</p> <p>Open Market</p> <ol style="list-style-type: none"> 1- Minimum 35 hours voice recording facility. 2- Variable speed playback (slow down speed up to 75% or lower and speed increase up to 200% or higher) 3- In Built Speakers 4- 3.5mm Stereo Earphone Jack 5- In Built Text to speech facility in English and if possible Hindi as well. 6- Support for playback of .MP3 and .Wav audio file formats 7- Capability to read following digital book formats: <ol style="list-style-type: none"> a. DAISY 2.02 TOC only audio books b. DAISY 3.0 and EPub text only

18	Daisy player (Advance model)	<p>books</p> <p>c. DAISY 2.02 and DAISY 3.0 full text full audio synchronized books</p> <p>d. doc,.htm and .txt files</p> <p>8- Following Easy Navigation facility while Reading of DAISY Books</p> <p>a. Go to next or previous page,</p> <p>b. Jump to specific page</p> <p>c.Go to previous or next chapter or sub section</p> <p>d. Go to previous or next phrase</p> <p>e. Jump forward or backward by specific time interval</p> <p>9- Easy to use and identifiable user interface or buttons</p> <p>10- Resume playback from last position in the book for at least last 10 read books</p> <p>11- Facility to insert at least 99 book -marks and to jump to bookmarked positions</p> <p>12- File Management like browsing, playing & deleting</p> <p>13- Facility to read content from external memory such as memory card or USB memory stick at least up to 16 GB</p> <p>14- Rechargeable battery with at least 8 hours usage per charge</p> <p>15- Facility to transfer data through USB Facility to Auto shut down after specified time</p>	20000/-	Open Market
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		<p>speed up to 75% or lower and speed increase up to 200% or higher)</p> <ol style="list-style-type: none"> 3. In Built Speakers 4. 3.5mm Stereo Earphone Jack 5. Connectivity to internet via Wi-Fi or 3g/4g sim card or LAN cable 6. Compatibility with DAISY online protocol 7. In Built Text to speech facility in English and Hindi. 8. Support for playback of .MP3 and .Wav audio file formats 9. Capability to read following digital book formats: <ul style="list-style-type: none"> • DAISY 2.02 TOC only audio books • DAISY 3.0 and EPub text only books • DAISY 2.02 and DAISY 3.0 full text full audio synchronized books • .doc,.htm and .txt files 10. Following Easy Navigation facility while Reading of DAISY Books <ul style="list-style-type: none"> • Go to next or previous page, • Jump to specific page • Go to previous or next chapter or sub section • Go to previous or next phrase • Jump forward or backward by specific time interval • Navigation by character or word when reading with TTS 11. Resume playback from last position in the 		
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19	Refreshable Braille Display	<p>book for at least last 10 read books</p> <p>12. Facility to insert at least 99 book -marks and to jump to bookmarked positions</p> <p>13. File Management like browsing, playing & deleting</p> <p>14. Facility to read content from external memory such as memory card or USB memory stick at least up to 16 GB</p> <p>15. Rechargeable battery with at least 8 hours usage per charge</p> <p>16. Facility to transfer data through USB</p> <p>17. Facility to Auto shut down after specified time</p>	<p>1.25 lakh (case by case)</p> <p>Open Market</p>
	Refreshable Braille Display	<p>Refreshable Braille Display System</p> <p>1- To be able to display at least 40 Braille Cells at a time.</p> <p>2- Connectable to the computer via USB port and Bluetooth.</p> <p>3- Inbuilt rechargeable battery.</p> <p>4- Must have at least 8 configurable navigation keys.</p> <p>5- Must have one cursor routing key per Braille Cell.</p> <p>6- Must have braille type six keys for typing commands or text on computer</p> <p>7- Should be compatible with open source screen reading software for windows and Linux.</p> <p>8- Should include software for reading Braille formatted files.</p>	

		<p>9- Should attach certificates of satisfactory performance of the equipment from the at least three user agencies from Europe and three from North America & Japan.</p> <p>10- Must produce evidence of turnover of Rs. 1,50,00,000/-per year from the last two years equivalent to US\$ 283000</p> <p>11- Reliable Service back-up in India.</p> <p>12- One year warranty with onsite service arrangement & provision of an alternative piece of equipment till the unit is repaired and returned</p>		
20	Screen Reading Software	Screen-Reading Software for blind: Bi-lingual edition: Hindi & English with Indian accent voice.	20000/-	Open Market
21	Screen Magnification Software	Screen Magnification Software with Speech for low vision	20000/-	Open Market
22	Laptops with screen reading software	<p>(1) Intel Core i3, 3110M, 2.4 GHz with 3MB Smart Cache or better,</p> <p>(2) Operating System Window 8 Professional,</p> <p>(3) IVY Bridge Configuration,</p> <p>(4) Mobile Intel 7 Series or higher chipset,</p> <p>(5) 4GB 1333 MHz DDR3 RAM or higher Expandable up to 8GB,</p> <p>(6) HDD 500 GB, 5400 rpm (min) SATA,</p> <p>(7) Display 14" (35.56 cm) or above TFT active matrix wide screen display, 1366 x 768 WXGA or higher,</p> <p>(8) Integrated Intel HD Graphics, Integrated Wireless b/g/n, Integrated</p>	25000/-	Open Market

		<p>Bluetooth, Integrated DVD Writer 8x and Integrated Stereo, Key Board with touch pad, (9) 3 USB, 10/100/1000 Ethernet card, RGB or Video or VGA, HDMI/Mini DP, Microphone In, Headphone In & other standard features, (10) Preinstalled and Norton/Mcafee/e-trust, & other software, Antivirus software latest version with 3 years license, (11) 230V, 50 Hz AC Supply with rechargeable Battery pack Comprising of Li-Ion/Li-Polymer battery Suitable pack Approx. (12) 4hours operation complete with battery charger/adaptor, Less than 2.5 kg with DVD Writer, (13) Carry case, 3 years warranty or higher</p>	
Open Market	5000/-	<p>The Cubarithm device (Math teaching aid and working frame for visually impaired persons) consists of 200 plastic cubes with magnetic properties along with single lifting device, embossed with Braille signs using the upper four dots (1, 2, 4 and 5) and an embossed line. Frame / board structure should accommodate 20x15 cells work board to enable the users to perform Arithmetic calculations. 100 X 9 mm square cubes.</p>	Cubarithem
23			

		Plastic container for the cubes				
24.	Radio + CD PLAYER	Plastic 20 X 15 cell work board measuring 25cm X 19cm X 1cm. Horse shoe magnet and Keeper, measuring 24mm X 28mm X 8mm.			2000/-	Open Market
25	Interline Braille Slate Big with two line Guide & Clamp fitted + two Plastic Stylus	Slate -Laminated Particle Board Guide & Clamp- G.I. Sheet Stylus - HDP Plastic 1 st quality	Slate - 357mm x 242mm x 9mm Clamp - 121.5mm x 53.5mm x 1.2mm with two pin & hole on top & two pin & hole on bottom pieces Guide - 302mm x 32mm x 1.2mm with 36 cell on top pieces & 297mm x 32mm x 1.2 mm with 36 embossed dot complete with 3 Nos. of locating pin aluminium on bottom pieces Stylus - 45mm plastic length x 20.5mm dia round head x 11.5mm centre dia x 7mm taper bottom dia fixed with stainless steel pin 30mm mould inside x 15.5mm outer length x 1.3mm thickness with ball head round smooth		200/-	NIVH
26.	Interline Braille Slate Small with	Laminated Particle Board	Slate - 291mm x 190mm x 9mm Clamp - 121.5mm x 53.5mm x 1.2mm		100/-	NIVH

	two line Guide & Clamp fitted	Guide & Clamp- G.I. Sheet	with two pin & hole on top & two pin & hole on bottom pieces Guide – 250mm x 32mm x 1.2mm with 28 cell on top pieces & 255mm x 32mm x 1.2 mm with 28 embossed dot complete with 3 Nos. of locating pin aluminium on bottom pieces		
27	Peg Board with 100 Plastic Coins	Hard Board & HDP Plastic Coins	Peg Board – 180mm Square x 3mm complete with 100 holes & with four Nos. of Nylon buffer fitted on at corner side of bottom	200/-	NIVH
28.	Taylor Frame Big with Arithmetic Types	Seasoned Shisham wood fitted with Hard board & Perforated Aluminium Sheet Types – 80% Leads & 20% Tin	Wooden Frame – 248mm x 304.5mm x 12.5mm fitted with 3mm hard board on bottom side Perforated/Punching Aluminium Sheet – 235mm x 229.5mm x 1.2mm complete with 25 holes x 25 rows Types – 4mm square thickness x one side 16mm height with 1.7mm x 1.5mm two dot x other side 15.5mm height with slot 4mm x 1.5mm x 1.5mm thickness	150/-	NIVH
29	Taylor Frame Small	Seasoned Shisham wood fitted with Hard board & Perforated Aluminium Sheet	Wooden Frame – 211mm x 304.5mm x 12.5mm fitted with 3mm hard board on bottom side Perforated/Punching Aluminium Sheet – 192.5 mm x 229.5mm x 1.2mm complete with 25 holes x 18 rows	150/-	NIVH

30.	Inter Point Braille Slate	ABS Plastic	Top - 305mm x 220mm x 2.7mm with 30 cell x 27 Line Bottom - 305mm x 220mm x 2.7mm with 30 dot embossed x 27 Line	100/-	NIVH
31.	Measuring kits	ABS Plastic	310 mm x 35mm x Tapper thickness-3mm centre & 2mm both side moulded with one side inches & other side centimetre	200/-	NIVH
32.	Measuring kits	ABS Plastic	158 mm x 35mm x Tapper thickness-3mm centre & 2mm both side moulded with one side inches & other side centimetre	200/-	NIVH
32.	Cricket Ball	HDP Plastic No. 6303 Milky White 1 st Quality	Outer dia 73mm x wall thickness 7.5mm , steel balls 3/16" x 24 Nos. fitted inside of the ball, Net Weight - 70 to 80 gms	35/-	NIVH
34.	Abacus	ABS Plastic	150mm x 91mm x 9mm , 30 holes on top, middle & bottom for stainless steel wire with beads 5x13 rows passing through the holes also with foam inside for supporting the beads Steel wire - 90mm x1.8mm thickness Milky white beads - outer dia - 7mm x inner dia 1.9mm White Foam thickness-5mm	60/-	NIVH
35.	Tactile Drawing Board	Seasoned Shisham wood fitted with base Duro ply 1 st quality &	330mm x 250mm x 12.5 mm Duro ply thickness- 6mm	150/-	Open Market

		Hexagon nylon net inside		
36.	Pocket Frame 5 Line	Aluminium sheet	<p>Top - 156mm x 77mm x 1.2mm with 18 cell x 5 Line Complete with 2 pin & 4 hole</p> <p>Bottom - 156mm x 77mm x 1.2mm with 18 dot embossed x 5 Line Complete with 4 pin & 2 hole</p>	45/- NIVH
37.	<p>Versatile Geometry Board Aluminium with accessories</p> <ol style="list-style-type: none"> 1. Spring Divider 6" 2. Aluminium Spoon 3. Braille Scale 6" Steel 4. Braille Protector with Serrated Arms fitted 5. Serrated Scale Slotted 5" plastic 6. Serrated Guide GI fitted with MDF Board 7. Braille 	Aluminium Sheet & Rubber Sheet	<p>Aluminium Board - 320mm x 280mm x 12mm</p> <p>Rubber mat- 320mm x 280mm x 9mm Aluminium Sheet (two) - 320mm x 280mm x 1,5mm</p> <p>Rubber mat bounded sandwiched between two Aluminium Sheet, one side Geometry & other side Graph complete perforations with burr free smooth</p>	500/- NIVH

	Quarter Protector Plastic					
	8. Serrated circle Plastic fitted with GI Guide					
	9. 10 Nos Locating Pin Pointed aluminium					
38.	(A) Chess Board with Plastic Coins (B) Chess Kit	Seasoned Shisham wood fitted with base MDF Board & HDP 1 st quality Plastic Coins	Shisham wood - 350mm x 225mm x 12.5mm MDF Board – 350mm x 225mm x 6mm including providing Black square 25mm x 3.17mm thickness with centre hole dia 6.3mm in both Black & MDF down square Plastic Coins – 32 coins in each set (16 black without top pointed & 16 white with top pointed)	100/- 500/-	NIVH All India Chess Federation NIVH	
39.	Tactile Diagram Set (Set of 96 Pieces)	ABS plastic	150mm x 115mm x 3mm Dot embossed in figure of Science (Biology, Physics, Electronic) & Maths	1500/-	NIVH	
40	Scrabble Board with Plastic Coins (A to Z & 0	Duro Ply 1 st quality & Hard Board 1 st quality	Ply Board - 290mm x 220mm x 6mm Hard Board 290mm x 220mm x 3mm completed with 10mm square cutting	125/-	NIVH	

	to 9)			x 10 Line x 13 rows Plastic Coins – upper side 22mm square & lower side 9mm square embossed with A to Z (99) & 0 to 9 (10) in Print & Braille		
41.	Draught Board with Plastic Coins	Seasoned Shisham wood fitted with base MDF Board & HDP 1 st quality Plastic Coins	Shisham wood - 350mm x 225mm x 12.5mm MDF Board – 350mm x 225mm x 6mm including providing Black square 25mm x 3.17mm thickness with centre hole dia 6.3mm in MDF down square only Plastic Coins - 32 coins in each set (16 black without top pointed & 16 white with top pointed)	300/-	NIVH	
42.	Folding Stick with 5 Segments Total length – 106 cm	Aluminium Pipe sleeved with Lining PVC Pipe Milky White	Aluminium Pipe outer dia 12.7mm x inner dia 10.2 mm x Thickness 1.2mm including inside cutting – Top Pipe – 215mm x 1 Middle Pipe – 230mm x 3 Bottom Pipe - 205mm x 1 fitted with Elastic, Plastic Top & Nylon Tip	200/-	NIVH	
43.	Folding Stick with 4 Segments Total length – 87 cm	Aluminium Pipe sleeved with Lining PVC Pipe Milky White	Aluminium Pipe outer dia 12.7mm x inner dia 10.2 mm x Thickness 1.2mm including inside cutting – Top Pipe – 215mm x 1 Middle Pipe – 230mm x 2 Bottom Pipe - 205mm x 1 fitted with Elastic, Plastic Top & Nylon Tip	100/-	NIVH	

44.	Puzzle	Seasoned Shisham wood & MDF Board	Fram - 152.4mm square inside x 177.8mm square outside x 12.7mm x 7mm thickness fitted with duro ply 3mm base Puzzle Segment - MDF Board 6mm x 8 Nos. Various size with 25mm black square sun mica 0.5mm thickness Made of 80% lead & 20% Tin as per sample. Made of 80% lead & 20% Tin	300/-	NIVH
45	Arithmetic Types			125/- per Kg	NIVH
46	Algebra Types,			125/- per kg	NIVH
47	Braille	Braille 25 lines with 42 cell on an 11"X 11 1/2 "sheet of paper. Includes dust cover and wooden eraser (Carry case)		35,000/-	Open Market/ Worth Trust.
48	Talking Glucometer	<ul style="list-style-type: none"> • Should announce the result of the blood glucose in a clear audible voice. • Should store the reading in its internal memory. • Should be able to provide an average blood glucose reading function. ○ Alert for insufficient blood. ○ Low battery. ○ Wet/used strip. ○ Memory damage. • All the functionality of the device should be accessible through clear audible voice. 		3000/-	Open Market
49	Talking Blood Pressure Monitor	<ul style="list-style-type: none"> • Should announce the measurement in a clear audible voice. • Should be able to store the records in its internal memory. • Should be able to provide following notifications in clear audible voice. <ul style="list-style-type: none"> ○ Incorrect measurement. ○ Irregular heartbeat. ○ Internal errors in monitor • Should have automatic switch-off. • All the functionality of the device should be accessible through clear audible voice. 		3000/-	Open Market

50	Audio Labeller	<ul style="list-style-type: none"> • An electronic audio labelling device that enables recording and playback of audio labels associated with self sticking labels. • The electronic device must have <ul style="list-style-type: none"> ○ In built 4 GB memory ○ Rechargeable battery that would enable device to work for 4 to 5 hours of continuous use on a singly recharge. ○ USB connectivity for data transfer, firmware update and charging of the battery. ○ Simple to use re-record audio associated with any compatible label. • To be supplied with labels with following specifications: <ul style="list-style-type: none"> ○ At least 250 self sticking paper labels compatible with the sonic labeller. ○ It should be possible to purchase at least 2000. ○ More unique compatible labels different to the first 250 labels. ○ At least 40 unique washable labels that could be stuck or stitched to clothes 	3000/-	Open Market
51	Talking Thermometer	<ul style="list-style-type: none"> • Should announce the body temperature in clear audible voice. • Should have the option of temperature announcement in Degree Celsius or Farenheit. • Should have an option of Automatic switch-off. • All the functionality of the device should be accessible through clear audible voice. 	400/-	Open Market

**DRAFT LIST OF ASSISTIVE DEVICES FOR VISUALLY IMPAIRED
SUGGESTED BY THE EXPERTS DURING EXPERT COMMITTEE
MEETING HELD ON 7.5.2014**

KIT -1: FOR PRIMARY SCHOOL CHILDREN FROM 1ST TO 5TH CLASS

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1.	Interline Braille Slate with two stylus	200/-	NIVH
2.	Taylor frame with arithmetic types (250 grams) with packing box	150/-	NIVH
3.	Abacus (Inclusive Design)	60/-	NIVH
4.	Drawing Board with 20 sheets	300/-	NIVH
5.	Two Braille scales (6" and 12") (Inclusive Design)	12/-	NIVH
6.	Puzzles (Inclusive Design)	300/-	NIVH
7.	Peg Board (Inclusive Design)	200/-	NIVH
8.	Tactile book of drawings of major monuments, shapes of tall trees, types of houses, bridges, dam etc.	500/-	Yet to be designed and developed-to be added later
9.	One adapted board game with Dice	1000/-	NIVH
10.	Auditory balls (2 in nos.)	32/-	NIVH
11.	Scrabble board (Inclusive Design)	125/-	NIVH
12.	Small white folding cane (Four folds with packing)	80/-	NIVH
13.	Cubarithem	5000/-	Open Market
14.	Talking wrist watch	400/-	Open Market
15.	Kit bag/specially designed school bag for assistive devices	1000/-	NIVH
	Total	9559/-	

KIT -2: FOR UPPER PRIMARY SCHOOL CHILDREN FROM CLASS 6TH TO 8TH

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1.	Inter point Braille Slate with two stylus (large)	100/-	NIVH
2.	Interline Braille Slate	200/-	NIVH
3.	Taylor frames large with Arithmetic Types (250 grams) with packing box	150/-	NIVH
4.	Taylor frames large with Algebra Types (250 grams) with packing box	150/-	NIVH
5.	Tactile Geometry Kit with 20 raising sheets	500/-	NIVH
6.	Drawing Board with 20 raising sheets	150/-	NIVH
7.	Tactile Draught Board (Inclusive Design)	300/-	NIVH
8.	Tactile Chess Board (Inclusive Design)	500/-	NIVH
9.	One accessible board game	1000/-	Should be included at a later stage after ensuring mass production.
10.	Tactile diagram set for Science teaching	1500/-	NIVH
11.	Pocket Frame	45/-	NIVH
12.	Audio labeller (Inclusive Design)	3000/-	Open Market
13.	Signature guide with rupee checker and wallet	150/-	NIVH, Saksham Trust
14.	Braille wrist watch	1200/-	HMT, Saksham Trust, Karishma Enterprises, M/s Barrier Break Technologies
15.	White folding cane	200/-	NIVH
16.	Measuring kit (inch tape, needle threader, small Braille scale, liquid indicator, measuring cup)	200/-	NIVH
17.	Audio Ball 2no	32/-	NIVH
18.	Talking Table Clock	600/-	HMT, Saksham Trust, Karishma Enterprises, M/s Barrier Break Technologies
19.	Packing box	1000/-	NIVH
	Total	10,977 /-	

KIT-3: FOR SENIOR SECONDARY SCHOOL CHILDREN FOR 9TH AND 10TH

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1.	Interline Braille Slate with two stylus	200/-	NIVH
2.	Small white folding cane (Five folds with packing)	150/-	NIVH
3.	Talking calculator	500/-	Sparsh, Saksham, Karishma Enterprises
4.	Tablet computer	10,000/-	Open Market
5.	Rupee checker with wallet	150/-	Sparsh Trust, Saksham Trust, Karishma Enterprises, M/s Barrier-Break Technologies
6.	Packing box	1000/-	NIVH
	Total	12,000/-	

**KIT- 4: FOR HIGHER SECONDARY AND ABOVE SCHOOL CHILDREN
FOR CLASS 11TH AND 12TH**

KIT-4 (A): FOR BLIND CHILDREN

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1.	DAISY Player with one speaker	9,000/-	Open Market
2.	Smart cane	3,000/-	M/s Phoenix Medical Systems Private Ltd. (Proprietary item – to check & certify before procurement)
	Total	12,000/-	

KIT-4 (B): FOR LOW VISION CHILDREN

Sl. No.	Name of the assistive device	Indicative price in Rs.	Remarks
1.	Mouse Cam Video Magnifier	10,000/-	Saksham Trust, Karishma Enterprises, M/s Barrier Break Technologies
2.	Need based optical and non optical devices as prescribed by the rehabilitation expert	2,000/-	NIVH, Open Market
	Total	12,000/-	

KIT-5: FOR COLLEGE STUDENTS

COLLEGE KIT-5 (A): FOR BLIND STUDENTS

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1.	Smart phone with screen reading software	7,000/-	Open Market
2.	Pocket size blue tooth keyboard for smart phone or tablet	5,000/-	Karishma Enterprises, Saksham Trust, M/s Barrier Break Technologies
	Total	12,000/-	

COLLEGE KIT-5 (B): FOR LOW VISION STUDENTS

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1.	Smart phone with magnifier App for low vision	10,000/-	Open Market, Saksham Trust.
2.	Need based optical and non optical devices as prescribed by the rehabilitation expert	2,000/-	NIVH, Open Market
3.	Total	12,000/-	

KIT-6: ADL KIT FOR ADULTS

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1.	Rupee checker plastic with signature guide and rupee checker flexible with wallet	150/-	NIVH, Saksham Trust
2.	Smart Cane	3000/-	M/s Phoenix Medical Systems Private Ltd. (Proprietary item -- to check & certify before procurement)
3.	Talking body thermometer	400/-	Saksham Trust, Karishma Enterprises, M/s Barrier Break Technologies
4.	Talking wrist watch	400/-	Do
5.	Liquid level indicator	870/-	Do
6.	Pill dispenser	50/-	Do
7.	Talking table clock with four alarms and stop watch	400/-	Do
8.	Audio labeller	3000/-	Do
9.	Talking calculator	500/-	Do
10.	Measuring kit (inch tape, needle threader, small Braille scale, liquid indicator, measuring cup)	200/-	NIVH
11.	Packing Box	1000/-	NIVH
	Total	9970/-	

LIST OF COMMON LOW VISION DEVICES

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1.	Telescopic Glasses	3,000/-	Open Market
2.	Optical Magnifiers (Power lenses of different magnification capacity including magnifying glasses, magnifying sheets, high powered CCTV Glasses, directory readers etc.	5,000/-	Open Market
3.	Mouse Cam Video Magnifier	10,000/-	Open Market
4.	Hand held Electronic Video Magnifier up to 5 inches	10,000/-	Open Market
5.	Smart phone with magnifier app for low vision	10,000/-	Open Market

LIST OF HIGH-END AND OTHER COMMON DEVICES

(A) LIST OF HIGH-END DEVICES

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1	Braille (for Upper Primary & above)	35,000/-	Open Market
2	Laptop with screen reading software & with Indian language & Indian English TTS	25,000/-	Open Market
3	Refreshable Braille Display (40 cells or more) with Braille inputs keys	1,25,000/-	Open Market
4	Daisy Player Advance Model	20,000/-	Open Market
5	Screen Reading Software (Blind)	20,000/-	Open Market
6	Screen Magnification Software (Low Vision)	20,000/-	Open Market

(B) LIST OF OTHER COMMON DEVICES

Sl. No.	Name of the assistive device	Indicative price in Rs.	Source
1	Tablet with screen reading Software and keyboard (upper primary and above)	10,000/-	Open Market
2	Smart Mobile Phone with screen reading software accessible digital book reader, accessible word processing	10,000/-	Open Market
3	Daisy Player + Audio recorder with TTS	10,000/-	Open Market
4	Smart Phone with Magnifier for low vision	10,000/-	Open Market
5	Pocket size blue tooth keyboard for smart phone or tablet	5,000/-	Open Market
6	Talking Glucometer	3,000/-	Open Market
7	Talking Blood Pressure Monitor	3,000/-	Open Market
8	Audio Labeller	3,000/-	Open Market
9	Cubarithem	6,000/-	Open Market