



No. PLRA (BOR)/
CFO/ARCs/Budget/2023/
PUNJAB LAND RECORDS AUTHORITY
BOARD OF REVENUE, PUNJAB
Dated: 6th September, 2023

To

- 1) All Service Center In charges
- 2) All Assistant Director Land Records/ Land Record Officers

4th REVISED SOPs FOR INCURRING EXPENDITURES AT ARAZI

RECORD CENTERS

1. Please refer to captioned subject.
2. Board of Punjab Land Records Authority in its 22nd meeting held on 13th July, 2023 & subsequent notification No. PLRA/BN/1817 has approved amendments in PLRA-Delegation of Financial Power Regulations, 2023 for enhancement of financial powers of SCIs as recommended by Finance & Audit Committee
3. SCIs/Revenue Officers are directed to ensure that the expenditure is incurred according to revised SOPs and that the reports are submitted on monthly basis well in time.
4. For strict compliance please.

CHIEF FINANCIAL OFFICER

Punjab Land Records Authority, Lahore

CC:

1. Director General (Admin), PLRA
2. Additional Director General (Admin), PLRA
3. Additional Director Operations (North), PLRA
4. Additional Director Operations (South & Central), PLRA



**PUNJAB LAND RECORDS AUTHORITY
BOARD OF REVENUE, PUNJAB**

Dated: 6th September, 2023

**4th REVISED SOPs FOR INCURRING EXPENDITURES AT ARAZI
RECORD CENTERS**

Following SOPs will be observed while incurring operational expenditures at ARCs, QARCs & MARCs:

1. These 4th revised SOPs shall come into force with immediate effect.
2. According to Delegation of Financial Power Regulations 2023 of PLRA, following are the delegation of financial powers at ARCs:

Sr. No	Nature of Powers	To Whom Delegated	Extent
1	Utility Bills (Electricity & Telephone)	Service center In-charge (SCI).	Full power
Note: SCI shall exercise full powers up to the extent of monthly bills excluding arrears. As far as arrears are concerned, prior approval from competent Authority in PLRA HQTR shall be required.			
2	Postage & Telegraph, General Others (Cleaning material etc.)	(i) Competent Authority in PLRA HQTR (ii) Service center In-charge.	As per power defined in Schedule-I Up to Rs. 200,000/- per object head per month
3	R & M of I.T Equipment. R & M of Machinery & Equipment. R & M of Furniture & Fixture. R & M of Transport. R & M of Building (Including electrical fittings & payment to WAPDA for Transformer & meter Installation)	(i) Competent Authority in PLRA HQTR (ii) Service center In-charge.	As per power defined in Schedule-I Up to Rs. 200,000/- per object head per month
4	Stationery	(i) Competent Authority in PLRA HQTR (ii) Service center In-charge.	As per power defined in Schedule-I Up to Rs. 200,000/- per year

5	Purchase of IT Equipment (Hardware) <u>List of allowed Items:</u> 1. Scanners 2. CCTV 3. Web Camera 4. Thumb Device 5. Networking Cables & connectors 6. Thermal Printer 7. UPS including batteries 8. LAN switches 9. Desktop Parts (RAM, HDD, Power supply, Key board etc.)	(i) Competent Authority in PLRA HQTR (ii) Service center In-charge.	As per power defined in Schedule-I Up to Rs. 200,000/- per item per year.
6	Purchase of Plant & Machinery (Only Air Conditioners)	(i) Competent Authority in PLRA HQTR (ii) Service center In-charge.	As per power defined in Schedule-I Up to Rs. 200,000/- per item per year.
7	Purchase of Furniture & Fixture <u>List of allowed Items:</u> 1. Chairs 2. Tables 3. Benches	(i) Competent Authority in PLRA HQTR (ii) Service center In-charge.	As per power defined in Schedule-I Up to Rs. 200,000/- per item per year.
8	Signatories of ARC's Bank Account	Service Center In-charge of concerned ARC and Revenue Officer of concerned ARC.	

Notes:

1. All above financial powers shall be exercised subject to availability of the budget and funds released in ARC bank accounts.
2. Accounting & reporting shall be made by SCIs or any other Officer designated for such purpose as per the SOP notified by DG PLRA.
3. Powers given vide Sr. no 5 to 7 above shall only be used for purchase of allowed items having prescribed specification. Specifications shall be notified with the approval of DG PLRA. (**Specifications are attached below**)
4. All payments **other than petty expenses** shall be made through crossed cheque.
5. The Petty cash limit at each ARCs shall be observed as Rs. 50,000/- and maximum limit per case for payment is Rs 10,000/-.
6. The Petty cash limit at each QARCs shall be observed as Rs. 25,000/- and maximum limit per case for payment is Rs 10,000/. SCIs are bound to replenish Rs. 25,000/- to QARCs after approving their Petty Cash Reimbursement/Adjustment form and Petty Cash Advance form respectively. (**Forms are attached below**)
7. Monthly financial reporting including bank reconciliation shall be submitted in Accounts Wing of PLRA HQTR by SCI before 10th of every month.

3. Receipts in ARC Bank Account:

- a. Quarterly funds transferred from PLRA HQTRS for operational expenditures.
- b. Mutation share of ARCs/Revenue staff in computerized mutations.
- c. Profit in bank deposit.

(Receipt Voucher shall be prepared on a specified format (**Form-A**)).

4. Operational Expenditures from ARC Bank Account:

- a. SCI & Revenue officer of ARC shall exercise their powers as mentioned at Sr. No. 2 above.
- b. SCI & Revenue officer posted in tehsil level ARC are also responsible for operational expenditures of all relevant Qanungoi ARCs/MARCs in their respected tehsil. All relevant expenses incurred by QARCs/MARCs annexed with all relevant supporting will be forwarded to SCI for approval and payment as per SOPs.
- c. For incurring any expenditure beyond the specified limits or the type of expenditure does not exist in Sr. no.2 above, case shall be forwarded to the concerned Additional Director Operation showing proper reasoning of such expenditure, who after reviewing shall put up the case for getting administrative & financial approval from the competent authority. After getting approval from competent Authority, he will share approval with SCI for proceed further for execution of the job & payment from ARC bank account accordingly.
- d. The payments shall be made after deducting all applicable Government Taxes.
- e. For making each payment, a Payment Voucher shall be prepared on a specified format (**Form-B**). Proper record shall be maintained at the ARC for all payments made in the shape of payment vouchers.
- f. For booking all petty expenses incurred, a Cash Payment Voucher (**Form-C**) shall be prepared.
- g. For booking of adjustments i.e. bank charges, withholding tax on profit etc. an adjustment voucher (**Form-D**) shall be prepared.
- h. SCI shall forward the case for declaration of asset as unserviceable to concerned Additional Director (Operations) after vetting of concerned Revenue Officer.
 - i. Replacement will only proceed after declaration of existing asset as unserviceable.
 - j. Purchase of assets as mentioned in serial number 5, 6 & 7 are subject to declaration of existing asset as unserviceable.
 - k. For purchase of IT Equipment (Hardware) as mentioned at serial # 5 as stated above in point # 2, attached specifications (**Specifications-IT SR. # 5**) will be followed.

5. Reconciliation of ARC Bank Account & Monthly Financial Reporting:

- a. SCI shall prepare bank reconciliation statement on monthly basis.
- b. One monthly consolidated report (**Form-E**) shall be submitted by SCI before 10th of every month following the reporting month to Deputy Director (Field Accounting) in PLRA HQTRS by placing the said report at FTP link provided for this purpose along with report in Excel format and scanned copy of monthly bank statement of ARC bank account. DD- Field Accounting shall be intimated of the same through e-mail.

6. Maintenance of Record:

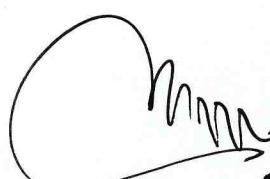
The Service Center In-charge shall keep & maintain proper record of all the reports and original vouchers in a safe manner so that the same is available at the time of audit, in this regard a register containing compete detail of payments shall be maintained.

7. Audit Mechanism:

SCIs are responsible for maintaining accounting records including vouchers and monthly bank reconciliations. SCIs are also responsible for provision of vouchers and supporting documents to Internal & External Auditors on their demand.

8. Transfer of Funds:

Funds will be transferred to ARCs on quarterly basis against the demand of ARCs submitted with the expenditure report of previous quarter.



CHIEF FINANCIAL OFFICER
Punjab Land Records Authority, Lahore





Punjab Land Records Authority

Board of Revenue, Govt. of Punjab

ARC Name	xxxxx			
Voucher Type	Bank Receipt Voucher			
Date:	xx-xx-xxxx			
Voucher No.	R(Year)(Month)(Number) Example R2023070001			
Details	xxxxxx			
Instrument No.	xxxxxxxx			
Value in Figure	Rs.0			
Value in words	zero			
Sr. No	Ledger	Debit	Credit	Remarks
1	Bank of Punjab	-	-	
2	Profit on Funds		-	

Total

Voucher Prepared by:

Service Center Official

Authorized & Signed by:

Service Center Incharge

Countersigned by:

Revenue Officer

Receipts

1	Receipt of Funds From Head Quarter
2	Profit on Funds
3	Collection of Mutation Share
4	Recovered from FBR
5	Other Receipt (if any)



Punjab Land Records Authority

Board of Revenue, Govt. of Punjab

ARC Name	xxxxx			
Voucher Type	Bank Payment Voucher			
Date:	xx-xx-xxxx			
Voucher No.	P(Year)(Month)(Number) Example P2023070001			
Vendor Name	xxxxx			
Cheque No.	xxxxxxxxxx			
Cheque Value in Figure	Rs.0			
Cheque Value in words	zero			
Sr. No	Ledger	Debit	Credit	Remarks
1	Electricity	-	-	
2	GST Payable (If applicable)		-	
3	PST Payable (If applicable)		-	
4	Income Tax Payable (If applicable)		-	
5	Bank of Punjab		-	
	Total	-	-	

Voucher Prepared by:

Service Center Official _____

Authorized & Signed by:

Service Center Incharge _____

Countersigned by:

Revenue Officer _____

LIST OF OBJECT HEADS

Sr. No.	Object Heads
1	Postage & Telegraph
2	Telephone & Trunk Call
3	Electricity
4	Stationery
5	General Others (Cleaning material etc.)
6	R & M of Building (including electrical fittings)
7	R & M of I.T. Equipment
8	R & M of Transport
9	R & M of Machinery & Equipment (ACs / Generators / Others)
10	R & M of Furniture & Fixtures
11	Purchase of I.T. Equipment
12	Purchase of Plant & Machinery
13	Purchase of Furniture & Fixtures
14	Bank Charges
15	Special Assignments
16	Mutation share distributed during the month
17	Cash
18	GST Payable
19	PST Payable
20	Income Tax Payable
21	Recovered by FBR



Punjab Land Records Authority

Board of Revenue, Govt. of Punjab

 Punjab Land Records Authority Board of Revenue, Govt. of Punjab	ARC Name	xxxxx		
	Voucher Type	Cash Payment Voucher		
	Date:	xx-xx-xxxx		
	Voucher No.	P(Year)(Month)(Number) Example C2023070001		
	Value in Figure	Rs.0		
	Value in words	zero		
Sr. No	Ledger	Debit	Credit	Remarks
1	Postage & Telegraph	-		
2	Telephone & Trunk Call	-		
3	Electricity	-		
4	Stationery	-		
5	General Others (Cleaning material etc.)	-		
6	R & M of Building (including electrical fittings)	-		
7	R & M of I.T. Equipment	-		
8	R & M of Transport	-		
9	R & M of Machinery & Equipment (ACs / Generators / Others)	-		
10	R & M of Furniture & Fixtures	-		
11	Cash		-	
	Total	-	-	

Voucher Prepared by _____

Service Center Official

Authorized & Signed by: _____

Service Center Incharge

Countersigned by: _____

Revenue Officer

LIST OF OBJECT HEADS

Sr. No.	Object Heads
1	Postage & Telegraph
2	Telephone & Trunk Call
3	Electricity
4	Stationery
5	General Others (Cleaning material etc.)
6	R & M of Building (including electrical fittings)
7	R & M of I.T. Equipment
8	R & M of Transport
9	R & M of Machinery & Equipment (ACs / Generators / Others)
10	R & M of Furniture & Fixtures
	Total



Punjab Land Records Authority

Board of Revenue, Govt. of Punjab

ARC Name	xxxxx
Voucher Type	Adjustment Voucher
Date:	xx-xx-xxxx
Voucher No.	P(Year)(Month)(Number) Example A2023070001
Value in Figure	Rs.0
Value in words	zero

Sr. No	Ledger	Debit	Credit	Remarks
1	Bank Charges	-		
2	Withholding Tax	-		
3	Bank of Punjab		-	
	Total	-	-	

Voucher Prepared by _____

Service Center Official

Authorized & Signed by: _____

Service Center Incharge

Countersigned by: _____

Revenue Officer

LIST OF OBJECT HEADS

Sr. No.	Object Heads
1	Bank Charges
2	Withholding Tax
	Total

PUNJAB LAND RECORDS AUTHORITY, BOARD OF REVENUE , PUNJAB
MONTHLY REPORT

Form-E

FOR THE MONTH OF July-23
ARC NAME

Description	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
A) Opening Balances:												
Opening Balance of Operational Funds (Cash + Bank)	-	-	-	-	-	-	-	-	-	-	-	-
Opening Balance of Special Assignment Funds	-	-	-	-	-	-	-	-	-	-	-	-
Opening Balance of ARC Staff Mutation Share	-	-	-	-	-	-	-	-	-	-	-	-
Opening Balance of MARC Mutation Share	-	-	-	-	-	-	-	-	-	-	-	-
Opening Balance of DMA Mutation Share	-	-	-	-	-	-	-	-	-	-	-	-
Total Opening Balance Mutation share	-	-	-	-	-	-	-	-	-	-	-	-
Opening Balance of FIR Recovery	-	-	-	-	-	-	-	-	-	-	-	-
Total of Opening Balances	-	-	-	-	-	-	-	-	-	-	-	-
B) Receipts:												
Funds Received during the month for Operational Expenditures	-	-	-	-	-	-	-	-	-	-	-	-
Profit on bank deposit during the month	-	-	-	-	-	-	-	-	-	-	-	-
Other Receipt (if any)	-	-	-	-	-	-	-	-	-	-	-	-
Funds Received during the month for Special Assignment Expenditures	-	-	-	-	-	-	-	-	-	-	-	-
Collection of ARC Mutation Share during the month	-	-	-	-	-	-	-	-	-	-	-	-
Collection of MARC Mutation Share during the month	-	-	-	-	-	-	-	-	-	-	-	-
Collection of DMA Mutation Share during the month	-	-	-	-	-	-	-	-	-	-	-	-
Total Collection of Mutation share	-	-	-	-	-	-	-	-	-	-	-	-
Recovered from FBR	-	-	-	-	-	-	-	-	-	-	-	-
Total Receipts during the month	-	-	-	-	-	-	-	-	-	-	-	-
C) Payments:												
Postage & Telegraph	Budget 212/24	-	-	-	-	-	-	-	-	-	-	-
Telephone & Trunk Call	-	-	-	-	-	-	-	-	-	-	-	-
Electricity	-	-	-	-	-	-	-	-	-	-	-	-
Stationery	-	-	-	-	-	-	-	-	-	-	-	-
General Others (Cleaning material etc.)	-	-	-	-	-	-	-	-	-	-	-	-
R & M of Building (including electrical fittings)	-	-	-	-	-	-	-	-	-	-	-	-
R & M of IT Equipment	-	-	-	-	-	-	-	-	-	-	-	-
R & M of Transport	-	-	-	-	-	-	-	-	-	-	-	-
R & M of Machinery & Equipment (AC/Generator/ Others)	-	-	-	-	-	-	-	-	-	-	-	-
R & M of Furniture & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-
Purchase of IT Equipment	-	-	-	-	-	-	-	-	-	-	-	-
Purchase of Plant & Machinery	-	-	-	-	-	-	-	-	-	-	-	-
Purchase of Furniture & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-
Bank Charges	-	-	-	-	-	-	-	-	-	-	-	-
Withholding Tax	-	-	-	-	-	-	-	-	-	-	-	-
Special Assignments	-	-	-	-	-	-	-	-	-	-	-	-
ARC Mutation share distributed during the month	-	-	-	-	-	-	-	-	-	-	-	-
DMA Mutation share distributed during the month	-	-	-	-	-	-	-	-	-	-	-	-
MARC Mutation share distributed during the month	-	-	-	-	-	-	-	-	-	-	-	-
Total Mutation share distributed during month	-	-	-	-	-	-	-	-	-	-	-	-
Recovered by FBR	-	-	-	-	-	-	-	-	-	-	-	-
Total Payments during the month	-	-	-	-	-	-	-	-	-	-	-	-
D) Closing Balances:												
Closing Balance of Operational Funds (Cash + Bank)	-	-	-	-	-	-	-	-	-	-	-	-
Closing Balance of Special Assignment Funds	-	-	-	-	-	-	-	-	-	-	-	-
Closing Balance of ARC Mutation Share	-	-	-	-	-	-	-	-	-	-	-	-
Closing Balance of MARC Mutation Share	-	-	-	-	-	-	-	-	-	-	-	-
Closing Balance of DMA Mutation Share	-	-	-	-	-	-	-	-	-	-	-	-
Total Closing Balance of Mutation Share	-	-	-	-	-	-	-	-	-	-	-	-
Closing Balance of FBR (excess)	-	-	-	-	-	-	-	-	-	-	-	-
Total of Closing Balances	-	-	-	-	-	-	-	-	-	-	-	-
E) Petty Cash on Hand at the end of month	-	-	-	-	-	-	-	-	-	-	-	-
F) Unpresented Cheques	-	-	-	-	-	-	-	-	-	-	-	-
G) Closing Balance as per Bank Statement	-	-	-	-	-	-	-	-	-	-	-	-

Signature & Stamp
Revenue Officer
e

Signature & Stamp
Service Center Incharge

**PLRA QANUNGOI ARAZI RECORD
CENTRE**

Petty Cash Advance Form

Requisition No.			Date:
Particulars	Requisitionist Name:		
	Designation:		
	Department:		
	Purpose:		
	Amount = (Rs.25000 – Previous month's expense adjusted)		
	Signature of Requisitionist:		
	Signature of Reporting Officer:		
Approval	Concerned ARC Service Centre Incharge/LRO	Remarks / Signature	
Conditions			
<p>1 - I acknowledge that I have no argument with the said amount which were incurred by myself and for which I am solely responsible.</p> <p>2 - It shall be my responsibility to provide the amount back or make appropriate adjustments to the authority at the agreed date.</p> <p>3 - I acknowledge that the said amount shall be deducted from my salary on the directions of Chief Financial Officer, If I am unable to appropriate / account for the amount received at agreed date.</p>			
CASH RECEIVING	Amount Received:		
	Name of Receiver:		
	Designation of Receiver:		
	Signature of Receiver:		

**PLRA QANUNGOI ARAZI RECORD
CENTRE**

Petty Cash Reimbursement / Adjustment Form

Requisition No.		Date:	
Particulars	Employee Name:		
	Designation:		
	Department:		
	Expense Description:		
	Amount (Rs.)		
	Signature of Requisitionist:		
	Signature of Reporting Officer:		
Approval Concerned ARC Service Centre Incharge/LRO	Remarks/ Signature		
Adjustment of Advance		Reimbursement of Expenses	
Advance Payment Voucher No.		Amount Received	
Voucher Date:		Name of Receiver:	
Amount of Advance Payment:		Designation of Receiver:	
Expense Amount Sanctioned:		Signature of Receiver:	
Outstanding Balance:			

SPECIFICATIONS FOR

**PURCHASE OF IT EQUIPMENT (HARDWARE) BY ARCs AS PER
SERIAL NO.5 OF SCHEDULE-II OF FINANCIAL POWERS
DELEGATED AT ARCs.**

**SPECIFICATIONS OF IT EQUIPMENT (HARDWARE) AS PER SERIAL NO. 5 OF
SCHEDULE-II OF DELEGATIONS OF FINANCIAL POWERS REGULATIONS 2023.**

1. SCANNER

Scanners		Technical Specifications
Sr.	Item	Description
1.	Scanner Type	Flatbed with ADF Functionality
2.	Hardware Scan Resolution	Up to 600x600 dpi or Higher
3.	ADF Function	ADF Speed 40ppm@ 300 dpi or above on Black, Grey and Color
4.	Bit Depth	24 bit
5.	Daily Duty Cycle	Minimum 5,500 pages
6.	Min Scan Size Flatbed & ADF	Minimum 8.5 x 14(legal) for both ADF and flatbed
7.	Scan file format	JPEG, TIFF, PDF
8.	Connectivity	USB 2.0
9.	Software	Scanning / Utility Software, With OCR capability
10.	Accessories	USB Cables, Power Cables / Power Adopter
11.	Compatible OS	Windows-7,8 ,10
12.	Warranty	1 Years Standard, On Site

2. CCTV CAMERAS

Technical specifications Supply and Installation of IP Cameras IP Cameras (In-door)	
Sr. #	Description
1.	4MP Dome
2.	H.265+
3.	SD Card Supported
4.	Wide Angle Fixed Length with manual Pan and Tilt Provision
5.	120db WDR
6.	Dual Stream
7.	0.01 ~ 0.03 Lux
8.	WDR/BLC
9.	ICR /3D DNR
10.	ROI
11	PoE, IP 66 / IP67
12	IR Range: Minimum 30m
13	ONVIF, CGI, ISAPI, PSIA etc.
14	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
15	20fps(2688×1520), 25fps(1920×1080), 25fps(1280×720)
16	Compatible with Existing NVR Brand (Huawei, Dahua , Hikvision)
17	Warranty 1 Year

Technical specifications IP Cameras (Out-door)	
Sr. #	Description
1.	4MP Bullet
2.	H.265+
3.	SD Card Supported
4.	Wide Angle Fixed Length with 2.8mm lens
5.	120db WDR
6.	Dual Stream
7.	0.01 ~ 0.03 Lux
8.	WDR/BLC
9.	ICR /3D DNR
10.	ROI
11	PoE, IP67, IK 10
12	IR Range: Minimum 30m
13	ONVIF, CGI, ISAPI, PSIA etc.
14	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
15	20fps (2688×1520), 25fps(1920×1080), 25fps(1280×720)
16	Compatible with Existing NVR Brand (Huawei, Dahua , Hikvision)
17	Warranty 1 year

Technical specifications Network Video Recorder	
Sr#	Description
1.	16 Channel NVR or Higher
2.	2x 4TB Surveillance SATA Hard Drives installed, Support for 4 SATA interface
3.	Software Screen Splitting Support 1/4/8/9/16 etc.
4.	H.265+, H265 codec decoding
5.	Minimum Incoming & out coming Bandwidth: 160Mbps
6.	HDMI/VGA simultaneous video output
7.	Support ANR technology to enhance the storage reliability in case of network break down
8.	Third Party Support Arecont Vision, AXIS, Bosch, Brickcom, dahua, Canon, CP Plus, Dynacolor, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, and more
9.	Protocols Support: Onvif 2.4 & CGI
10.	OSD Camera Title, Time, Recording etc.
11.	Ports: 2x Gig Ethernet, 1x VGA, 2x USB
12.	Warranty 1 Year

Technical specifications POE Switch	
Sr#	Description
1.	Cisco or equivalent
2.	24x 10/100 POE web managed switch with 2x Gig uplink of Ethernet
3.	Must support Surveillance and Unified Communication Solutions. POE+ Switch must support and bear load of 2x Cisco IP Phones (CP8845 & 7811) and 10x IP Cameras.

4.	Warranty 1 Year
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3. WEB CAMERAS

Web Cameras		Technical Specifications
Sr.	Item	Description
1.	Resolution	480P,640 x 480 pixels or higher
2.	Lens type	Coating Lens
3.	Viewing angle	52 degrees
4.	Focus type	Fixed focus
5.	Focus range	60cm and beyond
6.	Built-in Mic	Single Mic
7.	Output format	MJPEG
8.	Frame rate	30fps
9.	USB	USB 2.0
10.	Compatible with	Windows 7 /8/ 8.1/10 or later
11.	Warranty	1 year, Item replacement warranty

4. THUMB DEVICE

Thumb Devices Digital Persona U.are.U 4500		Technical Specifications
Sr.	Item	Description
1.	Scanner Type	Finger Print Reader
2.	Connection	USB 2.0 or better
3.	Optical Resolution	512 ppi
4.	Scan Capture Area	14.6 mm x 18.1 mm
5.	Maximum Gray Depth	8bit (256 Gray Level)
6.	Form Factor	Portable, Desktop
7.	Operating System	Windows-7, Server 2008, Windows 10
8.	Warranty	1 Years, Item replacement Warranty

5. NETWORKING CABLES & CONNECTORS

Technical Specifications LAN Cables		
Sr.	Item	Description

1.	LAN CAT 6 Cable	<p>Cat 6 UTP /STP 23AWG 3M, Molex, Schneider, or Equivalent.</p> <p>Unshielded Twisted Pair (UTP) Cable, • Conductor Metal: Solid Bare Copper</p> <ul style="list-style-type: none"> • Color Code: Gray, • Conductor Diameter: 0.560mm Nominal, 23 AWG • Insulation Diameter: 0.970mm Nominal, Insulation Material: HD-PE • Jacket Material: PVC UL94V-0/LSZH, • Cable Diameter: 6mm Nominal • PE Central Cross separator, <p>Approved & Certification Verified compliant with TIA/EIA-568C.2, standards by ETL, • CUL listed, • RoH etc or equivalent</p> <p>Payment will be made as per actual usage</p>	As per actual
2.	Tagging	Tagging of I/O, Patch Panel ports, and Cables. (All Ends)	As per actual
3.	Face Plates & Back Boxes	Dual Toolless I/O , Shuttered Face Plates, 3M, Molex, Schneider or Equivalent, with Back Boxes Plastic Dual Faceplate Accepts Two Keystone Jacks with Shutter & ID Plate- 86*86 mm - White Colour - Square	As per actual
4.	I/O	Toolless CAT6 I/O (3M, Molex, Schneider or equivalent), RJ45 Jack: Housing: PC, UL 94V-0, with optional color Contact, RJ45 Jack Contact: Material: Phosphor Bronze with Nickel Plated, Jack: 750 cycle min (ISO/IEC 11801, IEC 60603-7-4), IDC: suitable for 22-26 AWG stranded and solid wire, The Cat6 transmission performance is in compliance with the ANSI/TIA/EIA 568 C.2 standard	As per actual
5.	Patch Cord	3Meter (3M, Schneider, Molex or equivalent), 4 Pairs Unshielded Twisted Pair (UTP) LSZH Cable, • Conductor Metal: Bare Copper, Gold plated: 50U”, Temperature range: -10 ~ 80oC, 550 MHz Broadband Video, Dielectric withstanding voltage: 500V AC • Insulation resistance: 35M Ohm (max.), Verified compliant with TIA/EIA-568C.2 standards by ETL, CUL listed, RoHs	As per actual
6.	Patch Cord	1 Meter (3M, Schneider, Molex or equivalent), 4 Pairs Unshielded Twisted Pair (UTP) LSZH Cable, • Conductor Metal: Bare Copper, Gold plated: 50U”, Temperature range: -10 ~ 80oC, 550 MHz Broadband Video, Dielectric withstanding voltage: 500V AC • Insulation resistance: 35M Ohm (max.), Verified compliant with TIA/EIA-568C.2 standards by ETL, CUL listed, RoHs	As per actual
7.	Ducting[1] & PVC Pipes	Dura Duct Adamjee (or equivalent) Payment will be made as per actual usage 16 x 25,	As per actual

		16x38, 40x40 PVC Pipes (Popular, Adamjee or equivalent) 1" 1.5" 2"	
8.	Patch Panel	16x Ports patch panel loaded (3M, Molex, Schneider or equivalent)	As per actual
9.	Installation	All services mentioned in related services Payment will be made as per actual length of cable	As per actual

6. THERMAL PRINTER

Thermal Printer		Technical Specifications
Sr.	Item	Description
1	Technology	Direct Thermal
2	Paper Width	58/80mm
3	Resolution	203dpi
4	Barcode	PDF417, QR Code
5	Interfaces	USB, Ethernet
6	Environment	Must be rugged enough and can operate in dusty environments and between 5 degree-40 Degree temperature conditions
7	Power adopter	100-240v, 50-60 Hz, external power supply (supplied) or 24V DC
8	Warranty	1 year
9	Software	Windows
10	Emulation	ESC/POS
11	SDK	Windows, Android

7. UPS INCLUDING BATTERIES

UPS (1 KVA)		Technical Specifications
Sr.	Item	Description
1.	Output power capacity	600Watts / 1000VA
2.	Nominal Output Voltage	230V
3.	Output Frequency (not synced)	50/60 Hz +/- 1 Hz
4.	Topology	Line Interactive
5.	Waveform type	Stepped approximation to a sinewave
6.	Transfer Time	6ms typical: 10ms maximum
7.	Nominal Input Voltage	230V
8.	Automatic Voltage Regulation	Yes
9.	Input Voltage Range	170V-280V
10.	Input frequency	50/60 Hz +/- 5 Hz (auto sensing)
11.	Input Connections	IEC 320 C14

12.	Battery type:	Maintenance-free sealed Lead-Acid battery
13.	Intelligent off Mode Charging	Yes
14.	Recharge Time	6-8 Hours
15.	Control panel	LED Status display with On Line: On Battery
16.	Audible Alarm	Alarm when on battery: distinctive low battery alarm: overload continuous tone alarm
17.	Cold Start Capability	Required
18.	Warranty	3 Years Including BATTERIES, , On Site
19.	RoHS	Compliant
20.	Approvals	CE/FCC
21.	Battery Safety	Battery Disconnector
22.	Power Cables	4 Output Power Cables (Male Female Extensions) Additional
23.	Back Up Time @ 50% load	Minimum 5 Minutes
24.	Output Connections	4 universal receptacle or Better

8. LAN SWITCHES

LAN Switch (Web-managed)		Technical Specifications
Sr. No.	Item	Description
1.	Form Factor	Rack Mounted 1U
2.	Ports	24-RJ 45 auto sensing full duplex
3.	Cabling Type	UTP/STP CAT5 or better
4.	Protocol	CSMA/CD
5.	Network Media	support 10/100/1000BASE-T Port Densities
6.	Standards	IEEE 802.3u 100Base-TX IEEE 802.3ab 1000Base-T IEEE 802.3ad Port Trunk IEEE 802.1p QoS IEEE 802.1Q VLAN Tag
7.	Switch Fabric / Throughput	48Gbps forwarding capacity or higher
8.	Connectivity	Auto-MDI/MDIX
9.	Indicators	Suitable LED's for each port and Power
10.	Support	One Year Warranty

9. DESKTOP PARTS (RAM, HDD, POWER SUPPLY, KEYBOARD ETC.)

SSD Hard disk		Technical Specifications
Sr.	Item	Description
1.	Brand	Transcend/Kingston/WD/Samsung/Toshiba
2.	Type	M.2
3.	Bus Interface	NVMe PCIe
4.	Capacity	256 GB or Higher
5.	Performance Read/ Write	1000/1000 MB/s or Higher
6.	Compatible	Dell OptiPlex 5050
7.	Warranty	1 Year

RAM		Technical specifications RAM
1	Brand	Transcend/Kingston/WD/Samsung/Toshiba
2	Type	DDR4
3.	Memory Module	4 GB
4.	Memory Configuration	1 X 4 GB
5.	Memory Speed	2400 MHz or Better
6.	Compatible	Dell OptiPlex 5050 (intel Core i5-7500 Processor)
7.	Warranty	1 Year
Note:	During inspection both SSD & RAM will be first installed & tested on Desktop Computer and only after successful working will be accepted.	

Keyboard, Mouse, Power Supply		
1	Brand	Same Brand as Desktop

	SSD Hard disk	Technical Specifications
Sr.	Item	Description
1.	Brand	Transcend/Kingston/WD/Samsung/Toshiba
2.	Type	M.2
3.	Bus Interface	NVMe PCIe
4.	Capacity	256 GB or Higher
5.	Performance Read/ Write	1000/1000 MB/s or Higher
6.	Compatible	Dell OptiPlex 5050
7.	Warranty	1 Year

	RAM	Technical specifications RAM
1	Brand	Transcend/Kingston/WD/Samsung/Toshiba
2	Type	DDR4
3.	Memory Module	4 GB
4.	Memory Configuration	1 X 4 GB
5.	Memory Speed	2400 MHz or Better
6.	Compatible	Dell OptiPlex 5050 (intel Core i5-7500 Processor)
7.	Warranty	1 Year
Note:	During inspection both SSD & RAM will be first installed & tested on Desktop Computer and only after successful working will be accepted.	

	Keyboard, Mouse, Power Supply	
1	Brand	Same Brand as Desktop