ईपीएफओ, मुख्य कार्यालय
श्रम एवं रोज़गार मंत्रालय, भारत सरकार
भविष्य निधि भवन, 14, भीकाजी कामा प्लेस, नई दिल्ली 110066
EPFO, HEAD OFFICE
MINISTRY OF LABOUR & EMPLOYMENT, GOVERNMENT OF INDIA
BHAVISHYA NIDHI BHAWAN, 14, BHIKAIJI CAMA PLACE, NEW DELHI 110066
www.epfindia.gov.in

HRM-VII/II(I)/2016/PartFile-Part(1)/657   Date:- 09.09.2022

To,

All Additional Central PF Commissioners (HQ)/Director (PDNASS),

All Additional Central PF Commissioners (Zones),

All Regional PF Commissioners (In charge of ROs/DOs/ZTIs/Sub ZTI),

RPFC (ASD), Head Office

Sub: General Norms/Basic Guidelines for the purchase of Hardware in view of the Implementation of the E-office in the Field Offices -Reg.

Madam/Sir,

      In view of the budget requests received from the various zones regarding the purchase of the hardware for the e-office implementation in the field offices, the following is placed for the kind reference of all:-

1. Guidelines for the IT Infrastructure enhancement at EPFO Field Offices have already been circulated vide Circular No-IS-1(3)2003/Norms/vol-II dated 13.12.2018 (Copy enclosed). According to the circular

   "The total number of Desktops, excluding those declared Obsolete at any given time, should not exceed 75 % of the total sanctioned strength as per circular no. HRM-I/D-1(1)2017/CR/49 dated 27th January 2017 and should not exceed 10% beyond the total number of officials in position in the office."

2. The specifications for the purchase of the hardware were circulated by the IS Division vide dated 25.10.2021(copy enclosed) under the subject head "Revised Technical Model Specifications of Desktop PCs, Laptop PCs and Tablet PCs"
3. The systems which are already in use in the offices for official work shall also be used for the e-office; no separate system particularly for E-office is required, subject to the cyber security measures mentioned below at point no 6.
4. The sections/Users where no systems are currently available may be provided with the systems for purpose of e-office.
5. In order to avoid the wasteful expenditure, the general norms/basic guidelines are issued as follows:-

Regarding the NORM For purchase of Desktops for e-Office roll out: -

SN	SECTION	NATURE OF WORK	RECOMMENDED NO OF DESKTOPS
1	All sections dealing with administration including Dak/Dispatch/Adm/ Legal etc	All work done in physical files except uploading of data on hr-soft	1 per user
2	All compliance related section – compliance /recovery/ exemption etc	All work like notices, letters proceedings etc issued through physical files except compliance e-proceedings.	1 per user
3	Miscellaneous sections – Coordination / Raj-bhasha/Grievance Cell / PAC / Cash etc/ Any other section	Mainly physical file work for returns and translation and grievance handing.	1 desktop for every two – three users clubbing the miscellaneous sections together OICs to take judicious decision in the matter.
4	Accounts section and pension section	Main work is done on the Application Software and minimal physical file movement.	Normally 1 desktop for each account section / Pension section for now. OICs to take judicious decision in the matter.
5	DAK /Receipt	Main work is done for the scanning the physical receipts and to convert them into e-receipts	Normally 1 desktop for the section. OICs to take judicious decision in the matter.

Regarding the NORM For purchase of Scanner / Printer for e-Office roll out : -

SN	SECTION	NATURE OF WORK	RECOMMENDED NO OF SCANNER / PRINTER
1	Main DAK entry point	All physical DAK that is received will have to be scanned and converted to e-Receipt and then sent to sections except Physical claims and other documents that are submitted for accounts and pension Section related work. Scanning of Physical Files for conversion to e-Files.	Heavy Duty scanner for the work. Scanners already purchased for scanning of form 9 also to be used. OICs to take judicious decision in the matter.
2	All other sections	Need scanner for scanning of few pages etc while submitting file for correspondence side etc.	Not more than One Scanner / printer per section. Based on the requirement and strength of the section / office OICs to take judicious decision in the matter.

6. While using e-office and any other application following cyber security measures are to be taken care of:-

    6.1. It is suggested that two different desktops shall be provided to a user, as per authorization, for using FO (MPLS network) and e-Office (internet) applications in accounts section, pension section or any other section having similar nature of work.

    6.2. Further following best practices are recommended for the users:-

        6.2.1. Due care need to be taken by all users in maintaining air gap between the MPLS network based FO application and internet as per best practices.

        6.2.2. Usage of common storage device (pen drive, external HDD etc) and MFDs/ network printers between systems on MPLS network & internet to be avoided.

        6.2.3. Color coding of network cables (MPLS & Internet), for identification purpose, be undertaken.

        6.2.4. Internet at offices to be extended via Internet Leased Line (ILL) connections with adequate capacity as per requirement. Usage of individual Broadband (BB) connections is not recommended.
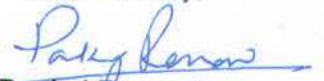
        6.2.5. Internet connections (ILL) to users at each FO/ RO to be extended through centralized firewall with requisite configuration & filtering as per best practices.

        6.2.6. Each end user system (desktop/ laptop) to be installed with a genuine & supported Operating System (OS) and a licensed end point security solution (anti malware/ antivirus).

        6.2.7. User's adherence to various cyber security guidelines/ advisories issued by security vertical on regular basis.

    The above norms for purchase of IT infrastructure are indicative in nature and OICs need to take judicious decision in the matter to avoid wasteful expenditure. All the Officers-in-charge are requested to ensure that the above mentioned norms and circulars mentioned above are kept in consideration while augmenting the IT hardware.

Yours faithfully,

(Pankaj Raman)
Addl CPFC (IS Division)

Copy to (Through EPFO Website)

1. PPS/PS to CPFC
2. PPS/PS to FA & CAO/CVO
3. PPS/PS to All Divisional Heads in Head Office
4. All ACCs
5. Chief Information Security Officer
6. Chief Technology Officer
7. RPFC, NDC for web circulation
8. Hindi Section for Hindi Version
9. Guard File

(Jaivadan Ingle)
RPFC-I (IS Division)

No.: IS-1(3)2003/Norms/Vol-II/

Dated: 13-12-2018.

To

All Officers-In-Charge of Offices

Sub: Guidelines for IT Infrastructure enhancement at EPFO Field Offices – Regarding.

Sir,

Considering the requirement of computer infrastructure for enhancing the service deliverables of EPFO field offices, the Competent Authority has decided to delegate the Officer In-Charge to assess the requirement / distribution / allotment of Desktop PCs under their jurisdiction.

2. The total number of Desktops, excluding those declared Obsolete (as per policy as mentioned at Point No. 5 herein below) at any given time, should not exceed 75% of the total sanctioned strength as per the Circular No. HRM-I/D-1(1)2017/CR/49 dated 27th January, 2017 (relating to Cadre Restructuring) and should not exceed 10% beyond the total number of officials in position in the office.

3. It should be ensured that all Desktop PCs are put to productive office use and in no case should any such item be left unused / unutilized.

4. The required operational software such as MS Office and Anti Virus may also be included in the procurement process. The individual UPS (Line Interactive 650 VA or 800 VA) or Common shared UPS (Online) may be decided locally as per the existing arrangement and load requirement.

5. Obsolescence Policy as outlined through Circular No.IS 2(1)2000/AMC/57739 dated 5th November, 2008 must be strictly followed while replacing the old Desktop PCs.

6. The purchases shall be made locally by each office strictly by following the extant GFR provisions, CVC guidelines and H.O instructions.

{This issues with the approval of Central PF Commissioner}

Yours faithfully,

Additional Central Commissioner (HQ-IS)

1. PS to CPFC
2. FA&CAO
3. CVO
4. ACC(Zones)
5. Web Administrator for uploading in EPFO Website

350554/2022/IS(NDC)

कर्मचारी भविष्य निधि संगठन
EMPLOYEES' PROVIDENT FUND ORGANISATION
(श्रम एवं रोजगार मंत्रालय, भारत सरकार)
(MINISTRY OF LABOUR & EMPLOYMENT, GOVT. OF INDIA)
राष्ट्रीय डाटा केंद्र /NATIONAL DATA CENTRE
1ST Floor, Bhavishya Nidhi Bhawan, Plot No.23, Sector-23, Dwarka, New Delhi-110075
www.epfindia.gov.in

No. e-25898   Date: 25.10.2021

To,

All Zonal ACCs, Director (PDNASS),
All Regional Provident Fund Commissioners (In-charge of Regions/ZTIs),
RPFC (ASD) Head Office

Subject: Revised Model Technical Specifications of Desktop PCs, Laptop PCs and Tablet PCs.

Reference: 1. EPFO Communication Number 1 (3)2003/Vol-II/281 dated 08.01.2019
                2. MEITY Communication Number – W-43/4/2020-IPHW dated 17.04.2021
                3. MEITY Communication Number – W-43/4/2020-IPHW dated 12.05.2021
                4. MEITY Communication Number – W-43/4/2020-IPHW dated 27.08.2021

Sir/Madam,

Reference is invited to the EPF Head Office's Communication cited at S No 1 above whereby norms and specifications for purchase of Laptops etc. were communicated. Consequent to the framing of the specifications of Laptops, Desktops & Tablet PCs as notified by Ministry of Electronics and Information Technology *vide* communications referred to at S. Nos. 2, 3 and 4 above, and adoption thereof, by the competent authority in the EPFO, the specifications of the categories of the products listed in the subject matter are hereby revised.

2.   This communication supersedes the previous specifications of the Laptops, Desktops and Tablet PCs notified by the IS Division vide circular dated 08.01.2019 cited at S No 1 above. All future procurement of the items, listed in the present communication, shall be carried out by PDNASS, ZTIs, NDC, ASD/PDU of Head Office, Zonal Offices and Regional Offices, in consonance with the specifications and protocols established by the MEITY as enunciated in the communications cited above at S. No. 2 to 4. Procurement of other items such as Thin Clients, UPS, Multi-Function Printers, Heavy Duty Laser Printers shall continue to be governed by the communication cited at S No. 1 above.

3.   The Officers-in-Charge of PDNASS/ZTI, NDC, ASD/PDU at Head Office, Zonal Offices & Regional Offices may ensure that GFR 2017 provisions, CVC guidelines and other guidelines of the GOI & EPFO, issued from time to time, are strictly adhered to in procurement.

4.   Obsolescence Policy as outlined through circular no. IS 2(1)2000/AMC/57739 dated 05.11.2008 must be strictly followed while replacing the old hardware.

(This issues with the approval of Central Provident Fund Commissioner)

Yours faithfully,

(Naveen Juneja)
Regional P.F. Commissioner (NDC)

350554/2022/IS(NDC)

W-43/4/2020-IPHW
Government of India
Ministry of Electronics and Information Technology
(IPHW Division)

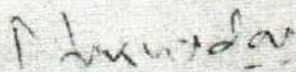Electronics Niketan, 6,
CGO Complex, Lodhi Road
New Delhi-110003.

Dated:27.08.2021

OFFICE MEMORANDUM

Subject: Revised Model Technical Specifications of Tablet PCs for procurement to be made by Ministries/ Departments and their agencies –reg.

Please refer to Ministry of Electronics and Information Technology (MeitY) O.M. of even number dated 12.05.2021 (*copy attached*) vide which the Model Technical Specifications of Desktop PCs, Laptop PCs and Tablet PCs for procurement to be made by Ministries/ Departments and their agencies have been circulated.

2. MeitY, with industry consultation, has revised the model technical specifications of Tablet PCs for procurement to be made by Ministries / Departments and their agencies / PSUs (*copy enclosed*).

3. All Ministries/ Departments are therefore requested to issue suitable instructions to procurement entities, including PSU/ Statutory bodies/ Autonomous bodies under their administrative control, for procurement of Tablet PCs as per the revised Model Technical Specifications dated 27.08.2021 issued by MeitY for usual official requirements. In case of any specific requirements that require high compute or memory intensive infrastructure, the procurement agencies may specify different specifications from the model technical specifications as suggested by MeitY.

4. Further, Government e-Market Place (GeM) is requested to upload the aforesaid revised Model Technical Specifications at GeM portal with suitable instructions.

(Mukul Kumar Yadav)
Scientist 'C'
Email: mukul.yadav@meity.gov.in
Tel: 011-2431777

Encl.: As above.

To,

As per list enclosed

-2-

1. All Secretaries of Ministries/ Departments of Government of India
2. CEO. Government e-MarketPlace (GeM)
3. All Societies/ Autonomous Bodies/ Attached Offices/ Statutory bodies under administrative control of MeitY
4. General Administration. MeitY

W-43/4/2020-IPHW-MeitY
Government of India
Ministry of Electronics and Information Technology
(IPHW Division)

Electronics Niketan, 6, CGO Complex,
Lodhi Road, New Delhi 110003

Dated: August 27, 2021

Subject: Revised Model Technical Specifications of Tablet PCs

Reference: Model Technical Specifications of Tablet PCs issued vide F.No. No. W-43/4/2020-IPHW-MeitY dated 17.04.2021.

An industry consultation was held on 16.07.2021 to revise the model technical specifications of Tablet PCs issued by Ministry of Electronics and Information Technology (MeitY) vide F.No. W-43/4/2020-IPHW-MeitY dated 17.04.2021. Based on the recommendations, the revised model technical specifications of Tablet PCs are as under:

Parameter	Specification
Processor	Quad-Core with frequency of 1.8 GHz or more
RAM	2 GB or higher
ROM	32 GB or higher
Rear Camera	5 MP or higher
Front Camera	2 MP or higher
Battery (mAh)	5000 mAh or more
Display (Size/Type/Resolution)	8.0" or more TFT (capacitive, multi-touch) 600 x 1024 (or higher)
Bluetooth Version	4.0 or higher

Parameter	Specification
Wi-Fi	802.11 a/b/g/n or higher
Network Support(Data & voice)	4G/LTE 3G/2G/VoLTE
SIM card slot	1 Micro SIM
Voice Calling Support	Yes
Micro USB 2.0 Slot	Yes
Audio In/Out	3.5 mm Headphone Jack
GPS	Yes
Operating System	Android 10.0 or equivalent
Certifications	BIS, EPR and RoHS and any other relevant Indian Certificates

All the other conditions of the Technical Specifications of Tablet PCs issued vide F.No. W-43/4/2020-IPHW-MeitY dated 17.04.2021 remain unchanged.

*****

W-43/4/2020-IPHW
Government of India
Ministry of Electronics and Information Technology
(IPHW Division)

Electronics Niketan, 6,
CGO Complex, Lodhi Road
New Delhi-110003.

Dated:12.05.2021

OFFICE MEMORANDUM

Subject: Model Technical Specifications of Desktop PCs, Laptop PCs and Tablet PCs for procurement to be made by Ministries/ Departments and their agencies –reg.

The Government has issued Public Procurement (Preference to Make in India) Order 2017 vide the Department for Promotion of Industry and Internal Trade (DPIIT) Order No.P-45021/2/2017-B.E.-II dated 15.06.2017 and subsequent revisions vide Order No. 45021/2/2017-PP(BE-II) dated 28.05.2018, 29.05.201, 04.06.2020 and 16.09.2020 to encourage 'Make in India' and to promote manufacturing and production of goods and services in India with a view to enhancing income and employment.

2. In furtherance of the aforesaid Order, Ministry of Electronics and Information Technology (MeitY) has notified mechanism for calculating local content for 13 Electronic Products, including Desktop PCs, Laptop PCs and Tablet PCs.
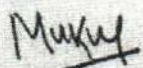
3. In order to consolidate demand and streamline the procurement process of aforesaid ICT products, MeitY, in consultation with the Industry stakeholders has framed Model Technical Specifications of Desktop PCs, Laptop PCs and Tablet PCs for procurement to be made by Ministries / Departments and their agencies / PSUs **(copy enclosed)**. The procuring entities shall incorporate the specifications of Desktop PCs, Laptop PCs and Tablet PCs as per their requirement in the tender document from the Model Technical Specifications issued vide O.M. of even number dated 17.04.2021.

4. All Ministries/ Departments are therefore requested to issue suitable instructions to procurement entities, including PSU/ Statutory bodies/ Autonomous bodies under their administrative control, for procurement of Desktop PCs, Laptop PCs and Tablet PCs as per the Model Technical Specifications issued by MeitY for usual official requirements. In case of any specific requirements that require high compute or memory intensive infrastructure, the procurement agencies may specify different specifications from the model technical specifications as suggested by MeitY.

-2-

5. Further, Government e-Market Place (GeM) is requested to upload the aforesaid Model Technical Specifications at GeM portal with suitable instructions.

(Mukul Kumar Yadav)
Scientist 'C'
Email: mukul.yadav@meity.gov.in
Tel: 011-2431777

Encl.: *As above*.

To

1. All Secretaries of Ministries/ Departments of Government of India
2. CEO, Government e-MarketPlace (GeM)
3. All Societies/ Autonomous Bodies/ Attached Offices/ Statutory bodies under administrative control of MeitY
4. General Administration, MeitY

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W-43/4/2020-IPHW
Government of India
Ministry of Electronics and Information Technology
(IPHW Division)

Dated: 17.04.2021

Subject: Model Technical specifications of Desktop PCs, Laptop PCs and Tablet PCs

Ministry of Electronics and Information Technology (MeitY) has notified mechanism for calculating local content for Desktop PCs and Laptop PCs vide Notification No. W-43/4/2019-IPHW-MeitY dated 07.09.2020, in furtherance of the Public Procurement (Preference to Make in India) Order 2017.

2. MeitY, in consultation with the Industry stakeholders has framed model technical specifications of Desktop PCs, Laptop PCs and Tablet PCs for procurement to be made by Ministries / Departments and their agencies / PSUs. The procuring entities may incorporate the specifications of Desktop PCs, Laptop PCs and Tablet PCs as per their requirement in the tender document from the model technical specifications given below:

3. **Model Technical Specifications:**

3.1 Desktop PCs:

Parameters	Model Specifications		
Processor	Entry Level	Mid Level	High end
	Core i3 10100/AMD R3 3200G	Core i5 10400/AMD R5 3400G	Core i7 10700/AMD R7 3700
RAM	4GB	8GB	(16GB) / (8GB x 2)
ROM Size	500 GB HDD	500 GB HDD	1 TB HDD, 256GB(SDD)
Chipset	Commercial chip sets		
DVD	DVD RW		
Display size (Monitor)	21.5" WTFT		
Display Type	LCD / LED		
Keyboard	Wired / Wireless		

Parameters	Model Specifications
Mouse	Wired / Wireless
Cabinet	MT
SMPS	180-250W
Speaker	1 speaker port
Ports	Minimum 6 USB, VGA/HDMI, LAN
OS	Windows/ Linux
Certification	BIS, BEE, EPR, RoHS or any other relevant Indian Certificates

3.2 Laptop PCs:

Parameters	Model Specifications		
	Entry Level	Mid Level	High End
Processor	Pentium Gold 6405U/ AMD Athlon 3050U	Core i3 1005G1/ AMD Ryzen 3 3250U	Core i5 1035G1/ AMD Ryzen 5 3500U
RAM	Minimum 4GB DDR4, with 2 DIMM slots with upto 32GB memory expandability	Minimum 4GB DDR4, with 2 DIMM slots with upto 32GB memory expandability	Minimum 8GB DDR4, with 2 DIMM slots with upto 32GB memory expandability
ROM Size	1 TB HDD	1 TB HDD	1 TB HDD +256 GB SSD 500 GB HDD/ 512 GB SSD
Battery	Lithium ion Battery Capacity (WattHour) - Minimum 36 Battery Backup Time (Hours) - 8		
Chipsets	SoC		

Parameters	Model Specifications
Display size	14"
Display Type	LCD / LED
Resolution	1366x768 HD display
Bluetooth	Enabled 5.0 or higher
Wireless Device	Wireless 802.11 ac+ BT 5.0 or higher
Interfaces	RJ-45, Min. 2 USB3.0 Type A & 1 USB 3.0 Type C, Audio combo port, DC Adapter Jack, HDMI port
Audio	Built-in stereo speakers with high definition audio support. Built-in Microphone.
Security	Bios Password/ FTPM 2.0 etc.
Hardware interface	USB and HDMI
Ethernet controllers	Gigabit Ethernet
Keyboard & touch pad device	Keyboard with touch pad
Mouse	Optional
Camera for video conferencing	HD 720p Webcam
Certification	BIS, BEE, EPR, RoHS or any other relevant Indian Certificates

3.3 Tablet PCs:

Parameter	Specification
Processor	Quad-Core with frequency of 1.8 GHz or more
RAM	2 GB or higher

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Parameter	Specification
ROM	32 GB or higher
Rear Camera	5 MP or higher
Front Camera	2 MP or higher
Battery (mAh)	5400mAh or more
Display (Size/Type/Resolution)	8.0" or more TFT (capacitive, multi-touch) 600 x 1024 (or higher)
Bluetooth Version.	4.0 or higher
Wi-Fi	802.11 a/b/g/n
Network Support(Data & voice)	4G/LTE 3G/2G/VoLTE
SIM card slot	1 Micro SIM
Voice Calling Support	Yes
Micro USB 2.0 Slot	Yes
Audio In/Out	3.5mm Headphone Jack
GPS	Yes
Operating System	Android 10.0 or equivalent
Certifications	BIS and BEE, EPR and RoHS and any other relevant Indian Certificates

4. Local content shall be calculated as per the MeitY Notification No. W-43/4/2019-IPHW-MeitY dated 07.09.2020, as amended from time to time.

5. The aforesaid model specifications shall be revised on a yearly basis, or earlier as deemed necessary, after due consultation with Industry / Industry Associations.

*****

350554/2022/IS(NDC)

कर्मचारीभविष्यनिधिसंगठन
EMPLOYEES' PROVIDENT FUND ORGANISATION
(श्रम एवं रोजगार मंत्रालय, भारत सरकार)
(MINISTRY OF LABOUR & EMPLOYMENT, GOVT. OF INDIA)
राष्ट्रीय डाटाकेंद्र /NATIONAL DATA CENTER
1ˢᵗ Floor, Bhavishya Nidhi Bhawan, Plot No.23, Sector-23, Dwarka,
New Delhi-110075 **Website:** www.epfindia.gov.in

No. IS-1(3)2003/Vol-II/281   Dated: 08.01.2019

To

All Officers-in-Charge
Zones/Regions/PDUNASS/ZTI
ASD, Head Office, NDC

Sub: **Revised specifications of Laptop & Desktop for normal use, Desktop for technical use, Thin Client, Printer (Normal and Heavy Duty), UPS, Virus Scanner and MS Office – Regarding.**

Madam/Sir,

     Consequent to the approval of competent authority, I have been directed to convey the revised specifications of Laptop & Desktop for normal use, Desktop for technical use, Thin Client, Printer (Normal and Heavy Duty), UPS, Virus Scanner and MS Office in all offices of EPF Organisation. The specifications of these items are at Annexure 'A'.

2.   This circular supersedes all previous circulars dealing with the norms and specifications of Laptop, Desktop, Printer, UPS, Virus Scanner and MS Office. All future procurement of these items shall be guided by this circular.

3.   The Officer-in-charge must ensure high standards of financial propriety, enforce financial order, exercise vigilance and strict economy while purchasing these items. It must also be ensured that GFR provisions and CVC guidelines issued from time to time are strictly adhered to.

4.   The officer-in-charge must also ensure that fair competition is ensured while procuring these products so that reasonable market rates can be obtained.

5.   Obsolescence Policy as outlined through circular No.IS 2(1)2000/AMC/57739 dated 05.11.2008 must be strictly followed while replacing the old desktop/PC/Printer etc.

6.   It must be ensured that the procurement of Laptop/Notebook/Ultrabook/Macbook is made in accordance with the IS Division Circular No. 1(3)2003/Norms/173 dated 09.05.2018.

     [This issues with the approval of ACC(HQ)(IS)].

Yours faithfully,

Encl: Annexure 'A'

(Udita Chowdhary)
Additional Central PF Commissioner (IS)

Copy to:-

1. PPS to CPFC
2. FA & CAO
3. Chief Vigilance Officer
4. All Divisional Heads in Head Office
5. Web Administrator for uploading on EPFO website

350554/2022/IS(NDC)

Annexure- A

S.No.		SPECIFICATION OF LAPTOP/NOTEBOOK/ULTRABOOK/ MACBOOK
1	Processor	Intel Core (i5/i7 or other latest model processor) / AMD Ryzen PRO Mobile Processors or higher
2	Generation	Intel-7th Generation or higher. AMD 6th Generation or higher.
3	Hard Disk Capacity	500GB / 1 TB SATA or higher capacity @7200RPM Or 256/500GB SSD
4	RAM	DDR4 RAM 8GB or higher (with a provision for expansion)
5	Battery Backup	Minimum 4 hours backup or higher
6	Options	Built in Web Camera (HD), Finger Print Scanner, Wireless LAN, Bluetooth features
7	Ports	USB 2.0 and USB 3.0 Ports, HDMI Ports & VGA Port
8	LAN	On board Gigabit LAN Port
9	Multi Card Slot	Multi Card Slot for memory card-Media Card Support (SD/SDHC/SDXC)
10	Display	Touch/non touch 14" or higher display screen (Full HD LED backlit, anti glare Optional)
11	CD/DVD Drive	Optical DVD-RW Drive
12	Power Adapter	OEM Power Adapter
13	Carry Case	Carry case or Laptop Bag must be provided
14	Mic & Speaker	Good Quality Mic and minimum 5W in-built Speaker
15	Graphics Card	Integrated Graphics Card
16	Warranty	3 years on-site warranty through OEM extendable for additional 2 years
17	Operating System	Latest Windows Operating System (Professional Edition-Preloaded with recovery/restore options with media/kit)
18	Virus Scanner	Pre loaded Virus scanner certified as compatible for the latest Windows operating System
19	Keyboard & Mouse	Standard feather touch laptop keyboard and touchpad
20	Certification	BIS, ROHS & energy star
21	Weight	Between 1.6 kg and 2.8 kg
22	MS Office	Suitable MS Office Standard/Professional version to be procured depending upon requirement.

350554/2022/IS(NDC)

S.No.		DESKTOP COMPUTER CONFIGURATION FOR NORMAL WORKING ENVIRONMENT
1	CPU	Intel core i5-6500, 2.8GHz, 6MB cache or higher processor
2	Memory	4GB 1600 MHz DDR3 RAM with 16 GB expandability or higher
3	Graphic Card	Integrated or Separate
4	Hard Disk Drive	1 TB @ 7200 RPM or higher
5	Monitor	50cm (19.5 inch or higher) Larger LED/TFT Digital Colour Monitor TCO-05 Certified
6	Key Board	USB Interface (104 keys)
7	Mouse	Optical with USB Interface
8	Bays	3.5" 2 Nos or above
9	Internal Speaker	Integrated Internal Speaker
10	Ports	6 USB Ports or more with minimum 2 USB with 3.0 ports, 1 display port/VGA Port, Audio Ports for microphone and speakers in the front, HDMI-Port-Optional
11	Cabinet	Tower/Mini Tower
12	DVD Writer	16x or higher DVD RW drive
13	Network Facility	10/100/1000 on board integrated Network Port with remote booting facility, remote system installation and wake up, TPM enabled 1.2 chip using any standard management software.
14	Operating System	MS Window 10 Professional licensed OS or higher with latest updates and restore/recovery CD/DVD media from a direct named OEM Account of Microsoft Licensing. The Certificate of Authenticity (COA) should have OEM's name printed on it.
15	OS Certification	Windows Operating System Certification
16	Power Management	Screen Blanking, Hard Disk and system idle mode in Power On, set up password, power supply SMPS Surge protected
17	Antivirus Software	Preloaded Virus Scanner certified as compatible for the latest Windows OS
18	Warranty	3+2 years onsite extended warranty
19	MS Office	Suitable MS Office Standard/Professional version to be procured depending upon requirement.

350554/2022/IS(NDC)

S. No.	DESKTOP COMPUTER CONFIGURATION FOR TECHNICAL ENVIRONMENT	
1	CPU	Intel core i7-6700, 3.4 GHz, 8 MB cache or higher processor
2	Memory	8 GB 1600 MHz DDR3 RAM with 32 GB expandability or higher
3	Graphic Card	Integrated or Separate
4	Hard Disk Drive	1 TB @7200 RPM or higher
5	Monitor	50cm (19.5 inch or higher) Larger LED/TFT Digital Colour Monitor TCO-05 Certified
6	Key Board	Standard Multimedia KBD with USB Interface (104 keys)
7	Mouse	3 Button (including scroll) Optical with USB Interface
8	Bays	3.5" 2 Nos. or above
9	Internal Speaker	Integrated Internal Speaker
10	Ports Headphone	6 USB Ports or more with minimum 2 USB 3.0 ports, 1 display port/VGA Port, Audio Ports for microphone and speakers in the front
11	Cabinet	Tower/Mini Tower
12	DVD Writer	16x or higher DVD RW drive
13	HDMI Port	Optional
14	Network Facility	10/100/1000 on board integrated Network Port with remote booting facility, remote system installation and remote wake up, TPM enabled 1.2 chip using any standard management software.
15	Operating System	Window 10 Professional or higher / Linux Preloaded, licensed OS with latest updates and restore/recovery CD/DVD media from a direct named OEM Account as the case may be. The Certificate of Authenticity (COA) should have OEM's name printed on it.
16	OS Certification	Windows Operating System Certification/ Linux Certification
17	Power Management	Screen Blanking, Hard Disk and system Idle mode in Power On, set up password, power supply SMPS Surge protected
18	Preloaded Antivirus Software	Preloaded Virus Scanner certified as compatible for the latest Windows OS
19	Warranty	3+2 years onsite extended warranty.
20	MS Office	Suitable MS Office Standard/Professional version to be procured depending upon requirement.

THIN CLIENT CONFIGURATION		
Thin Client: Windows Embedded Based Thin Clients with Browser		
1	Processor	2 GHs or above (single core or multi-core AMD/Intel/Via/Marvell processor
2	RAM	4 GB DDR3 or Higher
3	Flash	16 GB Powered Flash or Higher
4	Graphics & Monitor	64 MB graphics shared memory with support for high resolution monitors (17"/19")
5	Audio	Mic in and Speaker Out
6	Keyboard	Minimum 104 keys keyboard with USB 2.0
7	Mouse	2 Button Scroll optical mouse with USB 2.0
8	Printer Support	Local and network printers (RDP,ICA,LDP)
9	Networking and Ethernet Protocols	TCP/IP with DNS and DHCP, 10/100/1000 Base Fast Twisted pair (RJ-45), Point–to-Point Protocol (PPP), Point-to-point Protocol over Ethernet (PPPoE), Point-to-Point Tunnelling Protocol (PPTP), Wake on LAN & PXE.
10	I/O Ports and Connectors	4 USB Ports (Ver. 2.0/3.0) 1 RJ-45, 1VGA/DVI
11	Power Supply	230 + or – 10% VAC, 50 Hz energy –saving automatic power down.
12	Terminal Server Protocols	Integrated Microsoft RDP and Citrix ICA, RDX, etc.
13	Operating System & Management s/w	Windows Embedded Standard 7 OS or Higher OS with Compatible IE Browser, Enterprise Client Management Software, and Emulation Suite.
14	Additional Features	DHCP/FTP enabled flash upgrade, VNC Server and Txtpad, Multi user/ Single user log on support locally.
15	Physical Characteristics	Connection cooled fan less design, no moving part.
16	Warranty	3 Years on-site warranty through OEM and extendable for additional 2 Years

ONLINE UPS SPECIFICATION (3 KVA)

S.No	Item Particulars	Description / Remarks
1	UPS Rating in KVA	3 KVA On-Line UPS with inbuilt Isolation Transformer
2	Power input	Single Phase 160 V to 260 (50-60 Hz) input (5% harmonic distortion)
3	Power Output	Single Phase 230 V (50 Hz) output < 2% harmonic distortion
4	Backup timing	30 Minutes
5	Overload Limit	20% Overload Limit for minimum 10 Minutes
6	Efficiency	95% or above
7	Battery	Maintenance free SMF Batteries
8	High Voltage Protections	Protection of Over Voltage (above 260 V) / Over Load at UPS output / Short Circuit etc.,
9	Low Voltage Protections	Low Input Voltage (Below 160 V) Low Input Battery (Below 10.5 V instead of 12 V) per battery
10	Indicators	Indicators For Mains Presence, Battery Charging And Discharging, Output Over Load, Low Battery Voltage
11	Meters / Displays	Digital Metering In UPS For AC Input Voltage, Output AC Voltage, Frequency, Battery Voltage etc.,
12	Testing & Reports	Comply all Dry Heat Test, Damp Heat Test, Cold Test and availability of test reports Central Govt. /NABL/ILAC Accredited Lab Covering All Technical Requirements.
13	Interface for monitoring	Standard RS232 x 1, SNMP Slot x 1, Smart Slot x 1, Parallel Port x 1 with Monitoring software support
14	Warranty	2 Years On-site warranty
15	Scope of Work	Supply, Installation and Commissioning of UPS (excluding premises electrical work)
16	Purpose	The on-line UPS is recommended for Servers / Group of Desktop PCS / Thin Clients (approximately 10 to 12 PCs or 18-22 Thin Clients)

ONLINE UPS SPECIFICATION (5 KVA)

S.No	Item Particulars	Description / Remarks
1	UPS Rating in KVA	5 KVA On-Line UPS with inbuilt Isolation Transformer
2	Power input	Single Phase 160 V to 260 (50-60 Hz) input (5% harmonic distortion)
3	Power Output	Single Phase 230 V (50 Hz) output < 2% harmonic distortion
4	Backup timing	30 Minutes
5	Overload Limit	20% Overload Limit for minimum 10 Minutes
6	Efficiency	95% or above
7	Battery	Maintenance free SMF Batteries
8	High Voltage Protections	Protection of Over Voltage (above 260 V) / Over Load at UPS output / Short Circuit etc.,
9	Low Voltage Protections	Low Input Voltage (Below 160 V) Low Input Battery (Below 10.5 V instead of 12 V) per battery
10	Indicators	Indicators For Mains Presence, Battery Charging And Discharging, Output Over Load, Low Battery Voltage
11	Meters / Displays	Digital Metering In UPS For AC Input Voltage, Output AC Voltage, Frequency, Battery Voltage etc.,
12	Testing & Reports	Comply all Dry Heat Test, Damp Head Test, Cold Test and availability of test reports Central Govt. /NABL/ILAC Accredited Lab Covering All Technical Requirements.
13	Interface for monitoring	Standard RS232 x 1, SNMP Slot x 1, Smart Slot x 1, Parallel Port x 1 with Monitoring software support
14	Warranty	2 Years On-site warranty
15	Scope of Work	Supply, Installation and Commissioning of UPS (excluding premises electrical work)
16	Purpose	The on-line UPS is recommended for Servers / Group of Desktop PCS / Thin Clients (approximately 8 to 10 PCs or 15-20 Thin Clients)

Specification for Multi-Function Printers

S.No	Item Particulars	Description / Remarks
1	Printer Model	Mono Laser jet Multi Function Printers with ADF
2	Functions	Print, Scan, Copy and Fax (Auto Duplex and Networking)
3	Print Speed	Between 25 PPM to 38 PPM
4	Resolution	600 x 600 dpi
5	Copy Speed	15 CPM or higher
6	Scan Resolution	600 dpi and upto 1200 dpi
7	Scan Speed	Black & White 20 IPM and Color 6 IPM
8	Scan Size	ADF 8.5 x 14"
9	Monthly Page volume	8000 - 10,000 PPM
10	Paper Support	A4 and Legal
11	Duplex Printing	Auto Duplex
12	Networking	LAN and WiFi (optional)
13	Warranty	3 Years On-Site Support
14	Scan Formats	Scan Formats includes JPG, Tiff, PDF,PNG and BMP
15	Copy Reduce & Enlarge facility	25 to 400%
16	Paper Tray	250 Sheets, ADF – 35 Sheets
17	Connectivity	Hi-Speed USB and one Ethernet Port (WiFi – Optional)

Specification for simple laser printer

S.No	Item Particulars	Description / Remarks
1	Printer Model	Mono Laser jet Printer
2	Functions	Only Black
3	Print Speed	14 PPM
4	Resolution	600 x 600 dpi
5	Duty Cycle	1000 Sheets per month
6	Warranty	3 Years on-site warranty
7	Connectivity	Hi-Speed USB connectivity

Specification for Heavy Duty Laser Printers

S.No	Item Particulars	Description / Remarks
1	Printer Model	Mono Laser jet Heavy Duty Printer
2	Functions	Print(Auto Duplex and Networking)
3	Print Speed	Between 35 PPM to 38 PPM or higher
4	Resolution	600 x 600 dpi / 1200 x 1200 dpi
5	Monthly Page volume	8000 – 10000 PPM
6	Paper Support	A4 and Legal
7	Networking	LAN and WiFi (optional)
8	Warranty	3 Years On-Site Warranty
9	Input Tray	2 Input Trays
10	Output Tray	150 sheets output bin
11	Connectivity	1 High Speed USB, 1 Gigabit Ethernet and WiFi (optional)