Memo.No. RUSA/Equipment/2018-19   Dated. 09.012019

Sub: RUSA - Purchase of Equipment by the Colleges funded under RUSA - Requirement called for - Reg.

Ref: Specifications for purchase of equipment under RUSA cleared by the Committee constituted by CCE & SPD RUSA.

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It is informed that a Committee was constituted by CCE & SPD RUSA to draft the specifications for procurement of equipment for the Government Degree Colleges funded under RUSA, the details of which are annexed.

In this regard, the Principals of the Government Degree Colleges funded under RUSA (Comp. V and VII) are requested to submit the proposals for purchase of ICT equipment while strictly adhering to the specifications annexed to this memo, by 11.01.2019.

Sd/-
Commissioner of Collegiate Education &
State Project Director (RUSA)

To
The Principals of
Government Degree Colleges funded under RUSA.

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Project Officer
State Project Directorate
R.U.S.A.

List of ICT Equipment with specification for procurement by Government Degree Colleges

1. Desktop - Intel Core i3/SL (HP/ Dell/ Lenovo)

S.No	Feature	Specifications
1	Processor	Intel® Core i3
2	Motherboard	OEM Motherboard with logo embossed (no sticker)
3	Memory	4 GB DDR 4 RAM expandable to 32GB; Two DIMM slots; Non-ECC dual-channel upto 2666 MHz
4	Hard Disk Drive	500 GB HDD, 7200 RPM
5	Ethernet	Integrated Gigabit (10/100/1000 NIC) LAN
6	Keyboard/Mouse	USB 104 keys keyboard (Same make as PC), USB 2 Button Scroll Mouse (Same make as PC)
7	Operating System	Genuine Microsoft Windows 10 SL
8	Monitor	19.5" LED Monitor
9	Warranty	3 years onsite

2. Laptop – i5/SL - (Dell/ HP/ Lenovo)

S.No.	Parameter	Specifications
1	Processor	Intel Core i5
2	RAM	8GB DDR4 RAM 2133 Ghz expandable upto 16 GB RAM or Higher with 2 Slots and both slots should upgradeable
3	Hard Drive	1 TB HDD
4	Speakers/Audio	Integrated Audio with High Quality internal speakers.
5	Network Interface	10/100/1000 Network interface.
6	Wireless LAN	Wireless — 802.11b/g/n and Bluetooth V4.0 or Higher
7	Display (Screen Size)	14" /15.6 TFT Anti-Glare LED backlit color display
8	Input Devices	Keyboard with standard touch pad.
9	Web Cam	Integrated webcam and microphone
10	Operation System	MS Windows 10 SL
11	Warranty	Three Year Comprehensive onsite Warranty

3. Laptop - i3/SL (Dell/ HP/ Lenovo)

S.No.	Parameter	Specifications
1	Processor Technology	Intel Core i3
2	RAM	4GB DDR4 RAM 2133 Ghz expandable upto 16 GB RAM or Higher with 2 Slots and both slots should upgradeable
3	Hard Drive	500 GB HDD
4	Speakers/Audio	Integrated Audio with High Quality internal speakers.
5	Network Interface	10/100/1000 Network interface.
6	Wireless LAN	Wireless — 802.11b/g/n and Bluetooth V4.0 or Higher
7	Display (Screen Size)	14" /15.6 TFT Anti-Glare LED backlit color display
8	Input Devices	Keyboard with standard touch pad.
9	Web Cam	Integrated webcam and microphone
10	Operation System	MS Windows 10 SL
11	Warranty	Three Year Comprehensive onsite Warranty

4. MFD A3 Network Multi-Function Device 25 PPM ADF (HP/ Canon/ Samsung)

S.No.	Parameter	Specifications
1	Print/Copy Speed	25 PPM Or above
2	Paper Size	A4, A3
3	Print Resolution	Upto 1200 DPI
4	Copy Resolution	600X600 DPI
5	Hard Disk Capacity	320 Gb Or Above
6	Processor	1.2 Ghz
7	RAM	4 GB Or Above
8	Duplex	Yes
9	RADF	100 Sheet or Above
10	Scan Destinations	Scan to E-mail; Save-to-Network Folder; Save-to-USB drive; Send to Sharepoint; Send to FTP; Send to sFTP
11	Print Languages	PCL5, PCL 6, Postscript Emulation
12	Paper Capacity	520 sheetsX2, 100 sheet By Pass
13	Network	10/100/1000
14	Duty Cycle	300000 Pages or more
15	Display	8" Touch screen or better
16	Toner	Bidder to provide toners for Printing 40K Pages along with the machine
17	Drum Life	200000 Pages or More
18	Warranty	1 year Warranty

5. Projector with Internal Storage media port – (View Sonic/ EPSON/ ITACHI)

S.NO	Feature	Specifications
1	Technology	DLP
2	Native Resolution	1024 x 768
3	Resolution Support	VGA (640 x 480) to FullHD (1920 x 1080)
4	Brightness	3600 Lumens
5	Contrast Ratio	22,000:1
6	Throw Ratio	1.96 - 2.15
7	Image Size	30" - 300"
8	Keystone Correction	+/- 30 degrees V and +/- 20 degrees H
9	Display Color	1.07 Billion Colors
10	Minimum Life Of Projection Lamp (In Normal Mode)	5000 Hours
11	Maximum Life Of Projection Lamp(In Super Eco Mode)	15000 Hours
12	Video Compatibility	NTSC. PAL, SECAM
13	Inbuilt Speaker	10W x 1
14	HDMI 1.4 Port (HDCP)	1
15	Computer In Port	1
16	Computer Out Port	1
17	Audio In	1
18	Audio Out	1
19	Video In	1
20	RS232	1
21	USB Type Mini B (Services)	1
22	USB Type A (Power) - 5V/1.5A	1
23	Storage Media Port (USB- Type A) - PC Less	1

	Presentation	
24	WiFi Availability	with WiFi Dongle
25	LAN Connectivity	1
26	3D Ready	Yes
27	Power Consumption In Sleep Mode	<0.5 W
28	Power Consumption In Normal Mode	260 W
29	Audible Noise	27 dB
30	Warranty Period	2 years, Lamp-12 months

6. Scanner sheet fed – (Sony/ EPSON/ CANON)

S.NO	Feature	Specifications
1	Scanner Type	Sheet Fed
2	Scanning Technology	CIS
3	Document Size	A4
4	Optical Resolution (Dpi)	600
5	Maximum Resolution (Dpi)	600
6	Monochrome Scan Speed	35
7	Colour Scan Speed	35
8	Colour Depth (Bits)	24
9	Paper Weight Handling Capacity (GSM)	413
10	Scanning Feature	Duplex
11	Paper Path	U
12	Multi Fed Detection Feature	Yes
13	Automatic Document Feeder (ADF)	Available
14	ADF Tray Capacity (Number of sheets)	50
15	USB interface	3
16	Network Interface	Not Available
17	Wi-fi Interface	Not available
18	OS Compatibility	OS X El Capitan 10.11, Microsoft® Windows® 10, 8.1, 8, 7: 32-bit or 64-bit
19	Daily Duty Cycle (Number of Pages)	3500
20	Scan File Formats	PDF, JPEG, PNG, BMP, TIFF, Text (.txt), Rich Text (rtf) and Searchable PDF
21	Bundled Software's	HP WIA scan driver, HP TWAIN scan driver; HP Scan, HP Scanner Tools Utility, Nuance Paper Port (Win only), I.R.I.S Readers, I.R.I.S Cardiris (Win only), EMC ISIS (Win only)
22	Power Consumption in Standby mode (Watts)	0.7
23	Power Consumption in Operational mode (Watts)	4.2
24	BIS Registration as per Compulsory Registration Scheme under Gazette of India Notification no. S.O. 2357(E) dated 07/09/2012 issued by Department of Electronics and Information Technology	Yes
25	BIS Registration Number and Its validity	R-41001651
26	Operating Temperature Range (Degree C)	35
27	Operating Humidity (% RH)	80
28	On Site OEM Warranty (Year)	1

7. UPS 5 KVA – (APC/LIBERT/Numeric)

S.NO	Feature	Specifications
1	Capacity	5 KVA / 4 KW
2	Technology	Microprocessor Controlled, True Online Double Conversion UPS with PWM Technology using IGBT Rectifier and IGBT Inverter
	Self-Test	UPS should be capable of performing self-test during Power on to ensure reliable operation
4	Input Parameters:	
5	Voltage	220 V, 1-phase, 3 wire
6	Voltage Range	Wide range from 160V to 300VAC on full Load
7	Frequency Range	40 to 60 Hz
8	Phase	Single Phase with Ground
9	Power Factor at rated load	Active Power Factor Correction >0.99
10	Isolation Transformer	should provide Inbuilt Galvanic Isolation transformer at the input
	Harmonic Distortion(THD)	< 10%
11	Output Parameters:	
12	Voltage	220VAC / 230VAC / 240VAC +/- 1%, 1phase
13	Voltage Regulation	+/-1 %
14	Frequency	50 Hz +/- 0.1 Hz
15	Current Harmonic Distortion	Less than 5%
16	Overload rating	125% for 10 min., 150% for 1 min.
17	Output waveform	Pure sine wave
18	Crest Factor	3:1 max.
19	Power Factor	0.8 pf
20	Battery Parameters:	
21	Battery Type / Make	Battery Type: VRLA Spill proof, Sealed Lead Acid Maintenance Free Batteries (Exide/Amraraja-Quanta/ Panasonic Make) Proposed supply of batteries should be of latest batch not older by 3months as on date of supply.
22	Battery Backup	120 Minutes
23	Total VAH	13260 VAH or Higher
24	Polarity Protection for Battery connection	Should be provided
25	Battery Rack & Connectors	Powder coated battery rack/Stand to be provided
	Charger	Built-in solid-state Constant Voltage Constant Current Solid state Temperature Compensated charger with current limiting features
26	Other Features:	
27	Display	LCD display for status/fault information
28	Communication Port	RS 232, SNMP (Optional)
29	Compatibility	Should be Generator Compatible
30	Protection:	All critical source and sensitive loads should have protection from transients, Advanced Electronic Protection for device safety for rectifier and Inverter, Built-in Overload protection, from short Circuits (OVCD)
31	Intelligent Fan Operation	Should be provided

32	Auto restart	should be provided
33	Bypass	Static Bypass
34	Standard Interface	RS 232/USB port or SNMP Interface for software
35	Technical Data Sheet:	Bidders should submit the Catalogue for proposed model with complete required details.
36	Credentials	The UPS Manufacturer should be ISO 9001, ISO 14001 and OHSAS 18001 Certified
37	BIS Registration	BIS Registration should be on Indian Manufacturing Address
38	CE & RoHS Compliance	The bidder should enclose relevant RoHS & CE certificates for the quoted model
39	Test Report	ETDC From STQC Directorate, Govt of India / NTH, issued by Govt. of India Firms should be submitted
40	Standards	Should comply to the following standards Safety 62040-1, EMI / EMC 62040-2 & Performance 62040-3
41	Cabling and Connectors	Vendor should supply required Input/output Cables (Max 2Mtrs to 3 Mtrs Length on both sides) to complete the installation of UPS systems
42	Warranty	24 Months Comprehensive Onsite warranty for UPS & SMF batteries
43	Service Facility	The UPS Manufacturer should have local service Centres in all the Districts of this State

8.   UPS 10 KVA – (APC/LIBERT/Numeric)

S.No	PARAMETER	SPECIFICATION
1	Capacity	10 KVA / 8 KW
2	Technology	Microprocessor Controlled, True Online Double Conversion UPS with PWM Technology using IGBT Rectifier and IGBT Inverter
3	Self-Test	UPS should be capable of performing self-test during Power on to ensure reliable operation
	Input Parameters:	
3	Voltage	220 V, 1-phase, 3 wire
4	Voltage Range	Wide range from 160V to 300VAC on full Load
5	Frequency Range	40 Hz to 60 Hz
6	Phase	Single Phase with Ground
7	Power Factor at rated load	Active Power Factor Correction >0.99
8	Isolation Transformer	should provide Inbuilt Galvanic Isolation transformer at the input
9	Harmonic Distortion(THD)	< 10%
	Output Parameters:	
10	Voltage	220VAC / 230VAC / 240VAC +/- 1%, 1phase
11	Voltage Regulation	+/-1 %

12	Frequency	50 Hz
13	Frequency	50 Hz +/- 0.1 Hz
14	Current Harmonic Distortion	Less than 5%
15	Overload rating	125% for 10 min., 150% for 1 min.
16	Output waveform	Pure sinewave
17	Crest Factor	3:1 max.
18	Power Factor	0.8 pf
	Battery Parameters:	
19	Battery Type / Make	Battery Type : VRLA Spill proof, Sealed Lead Acid Maintenance Free Batteries (Exide/Amraraja-Quanta/ Panasonic Make) Proposed supply of batteries should be of latest batch not older by 3months as on date of supply.
20	Battery Backup	120 Minutes
21	Total VAH	24480 VAH or Higher
22	Polarity Protection for Battery connection	Should be provided
23	Battery Rack & Connectors	Powder coated battery rack/Stand to be provided
24	Charger	Built-in solid state Constant Voltage Constant Current Solid state Temperature Compensated charger with current limiting features
	Other Features:	
25	Display	LCD display for status/fault information
26	Communication Port	RS 232, SNMP (Optional)
27	Compatibility	Should be Generator Compatible
28	Protection:	All critical source and sensitive loads should have protection from transients, Advanced Electronic Protection for device safety for rectifier and Inverter, Built-in Overload protection, from short Circuits (OVCD)
29	Intelligent Fan Operation	Should be provided
30	Auto restart	Yes
31	Bypass	Static Bypass
32	Standard Interface	RS 232/USB port or SNMP Interface for software
33	Technical Data Sheet:	Bidders should submit the Catalogue for proposed model with complete required details.
34	Credentials	The UPS Manufacturer should be ISO 9001, ISO 14001 and OHSAS 18001 Certified
35	BIS Registration	BIS Registration on Indian Manufacturing Address

36	CE & RoHS Compliance	The bidder should enclose relevant RoHS & CE certificates for the quoted model
37	Test Report	ETDC From STQC Directorate, Govt of India / NTH, issued by Govt. of India Firms should be submitted
38	Standards	Should comply to the following standards Safety 62040-1, EMI / EMC 62040-2 Performance 62040-3
39	Cabling and Connectors	Vendor should supply required Input/output Cables (Max 2Mtrs to 3 Mtrs Length on both sides) to complete the installation of UPS systems and provide at least 2 spike suppressor with 3 or 4 nos. of 5 Amp sockets to connect from Output
40	Warranty	24 Months Comprehensive Onsite warranty for UPS & SMF batteries
41	Service Facility	The UPS Manufacturer should have local service Centres

9.   UPS 15 KVA - (APC/LIBERT/Numeric)

S.NO	Feature	Specifications
1	Capacity / Watts	15KVA / 13.5KW
2	Technology	Advanced Digital Signal Processor controlled, double conversion true on-line UPS system, PWM technology with IGBT Rectifier & IGBT Inverter
	Input	
4	Phase	Three Phase and Neutral with Ground
5	Voltage Range	Based on Load percentage 190VAC to 478VAC
6	Frequency Range	45-55Hz / 54-66Hz (50/60 Hz Auto sensing)
7	Power Factor	>0.99 on full load and 0.95 (above 25% Load)
8	THDi	< 5% with full Load
9	Galvanic Isolation Transformer	Should Provide Inbuilt Galvanic Isolation transformer at the Input
10	**Output**	
	Voltage	220 VAC / 230 VAC / 240 VAC
11	Voltage Regulation	+ / - 1%
12	Frequency	50/60 Hz +/- 0.2Hz (free Running Mode)
13	Synchronization range	46-54Hz / 54-66Hz
14	Harmonic Distortion (THDv)	< 2% (linear load), < 5% (non-linear load)
15	Output Waveform	Pure sine wave
16	Crest Factor	3:1
17	Efficiency (AC - AC)	93% @ Full R Load (without isolation)
18	Power Factor	0.9
19	Overload	110%~129% : 5 min, 130%~149% : 60 seconds, >150% : 10 Seconds
20	Battery Type	Sealed Lead Acid Maintenance Free
21	Backup Time / VAH	120 Minutes / 37400 VAH or Above
22	Charger	Built-in solid state three stage recharge (constantcurrent, Constant voltage with float charge).

23	Transfer time	
24	Line mode to battery mode	0 ms
25	**Features**	
26	ECO Mode	Should be available
26	Fan Speed Control	Should be available
27	EPO Function	Should be available
28	Frequency Converter Mode	should be available (derated to 60 % when the input source is 1phase)
29	Parallel function (Optional)	Up to 4 units
30	**General**	
31	Operating Temperature	0 to 45 Deg. C
32	Noise level	<55 dB @ 1 meter
33	Cold Start	Should be available
34	Display & Indication	User Friendly LCD Display
		Input : Voltage & frequency
		Battery : Voltage & Level in %
		Internal DC Bus voltage & Internal temperature
		Output : Voltage , frequency, current, power and Load Level in %
		UPS Status : Operating Mode / Warning / Fault / codes (faults & warnings)
35	Status LED	UPS Sentting : Output Voltage / Frequency / Bypass Enable / Disable / special function: (UPS / CVCF / ECO)
36	Audible Alarm	Normal Mode / Load on Battery / Load on Bypass / System Fault
		Mains Failure alarm
		Low Battery Alarm
		UPS Warning, Overload, Fault & Bypass mode etc..
37	Protections	Advanced electronic protection for device
		safety backed with MCBs
		Fast acting fuses,
		High speed pulse blanking
		Electronic overvoltage / under voltage
38	Bypass	Static Bypass
39	Communication Interface	
40	Standard	SNMP based Interface
41	Dimensions(in mm) and Weight (Kg)	Specify H x W x D and Weight Kgs.
42	TEST REPORTS	SHOULD ENCLOSE STQC - ETDC / SAMEER TEST REPORT OF THE QUOTED MODEL
43	Certifications	UPS Manufacturer should be ISO 9001:2008, ISO 14001:2004 & ISO 18001 Certified
44	Warranty	24 Months Onsite warranty for UPS & batteries

10. **Black and white printer LaserJet - 38ppm (HP/CANON/SAMSUNG)**

S.NO	Feature	Specifications
1	Printing Technology	Laser
2	Cartridge Technology	composite
3	Type of printing	mono
4	Paper Size	A4
5	Print Speed (A4) - Mono (PPM)	38
6	Print Speed (A4) - Color (PPM)	0
7	Resolution (Dpi)	1200X1200
8	Memory (MB)	128
9	Hard Disk Capacity (GB)	0
10	Processor Speed (Mhz)	1200
11	Duplexing Feature	yes
12	Duplex Print Speed (PPM / IPM)	30
13	Network Connectivity	Ethernet 10/100/1000
14	USB Port	yes
15	Paper Tray Capacity	250
16	Number of Paper Trays	2
17	Yield of Cartridge/Ink Tank/Ink Pack supplied with printer(Per Set)	30000
18	Duty Cycle /month (No of Prints)	80000
19	Operating Temperature Range (Degree C)	15-32.5
20	Operating Humidity (RH) (In %)	Oct-80
21	On site OEM warranty (Years)	1

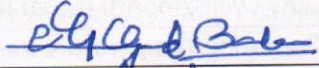**11.** **Black and white printer Laserjet - 61ppm (HP/CANON/SAMSUNG)**

S. No.	Specification	Desired Value
1	Printing Method	Mono laser, Integrated drum and toner
2	Print Speed (A4)	61 ppm; Duplex Up to 50 ipm
3	Print Resolution	1200 x 1200 dpi
4	Duty Cycle	275,000 pages
5	Processor	1.2 GHz
6	Memory	512 MB, standard & expandable upto 1.5 GB
7	Print Languages	PCL 6, PCL 5, Postscript level 3 emulation
8	Control Panel	2.7-inch colour graphics display with keypad; Easy-access USB
9	Paper Input	Tray 1: Up to 100 sheets - Priority Tray
		Tray 2: Up to 550 sheets
10	Paper Output	Up to 500 sheets (standard)
11	Paper Size (Max.)	A4, Legal, Custom sizes
12	Connectivity	Hi-Speed USB 2.0 Device& Gigabit Ethernet 10/100/1000 network
13	Compatible Operating Systems	Windows, Mac, Linux
14	Consumable	Min 11,000 yield or more in box
15	Maximum Power Consumption	Less than 800 Watts
16	Warranty	3 years
17	Toner	Provide Toners to print 25,000 Pages along with the Printer

12. Sound System:

S. No.	Specification	Desired Value
1	Speaker Connectivity	Wireless
2	Audio Wattage	50 Watts
3	Voltage	220 Volts
4	Wattage	50 Watts
5	Signal to Noise Ratio	70 db
6	Connector Type	Wired

One Computer Lab consists of 30 Desktop Computers

COMMITTEE

S. No.	Name, Designation & Address of the Committee Members	Signature
1.	Dr. K. Padmavathi, Principal, GDC(A), Nalgonda	
2.	Gajendra Babu PGK, ICT Officer, Academic Cell, O/o CCETS	
3.	A. Inna Reddy, Assistant Professor in Computers, GDC, Chanchalguda	
4.	B. Sambhasiva Rao, Assistant Professor in Computers, GDC, Narayanaguda	