

E-GOVERNANCE UNIT, EDUCATION DEPARTMENT

**PROCEEDINGS OF THE TAP MEETING HELD UNDER THE CHIRMANSHIP
OF PRINCIPAL SECRETARY TO GOVERNMENT (PRIMARY AND
SECONDARY EDUCATION)**

Date: 13.05.2019

Time: 3.30pm

Members present:

1. Sri. S R Umashankar, IAS, Principal Secretary to Government, Primary and Secondary, Education Department – Chairman
2. Prof. S Ramanathan, Head CND, Bengaluru– TAP Advisor
3. Sri.Venugopal, Scientist, Electronics & Redar Development Establishment, Bengaluru
4. Sri. Tangavelu C, Technical Director, NIC, Bengaluru
5. Smt. Sumangala , Director, KSEEB, Bengaluru
6. Sri. Gopalkrishna.H.N Director, DSERT, Bengaluru
7. Sri.Gavenoor Mutt, Administration Officer, Department of Public Library, Bengaluru
8. Sri Venkateshbabu, Under Secretary (Expenses -7&8), Finance Dept
9. Sri.SRS Nadhan, Under Secretary to Government(Planning), Education Department.
- 10.Smt. Anitha.V.Nazare, DDPI, Secondary Education, Office of the CPI, Bengaluru
- 11.Sri. Sooryaprakash Murthy, DDPI, DSERT, Bengaluru
- 12.Sri N.Manjunatha, Asst. Numerical officer, Department Planning, M&E
- 13.Sri..Harisha HG, coordinator, Information Center, Education Department.

The meeting of the Technical Advisory Panel was held on 13.05.2019 to consider the following proposals of the Department of Primary and Secondary Education:



1. To approve the technical specifications of the All-in-one computers, All-in-one Local Cache Sever, Laptops, LCD Projectors, UPS-with Batteries to be purchased by the Government for the HKDB Schools.
2. To approve the technical specifications of the 217 All-in-one Desktops, 83 UPS, 28 Bar Code Printers, 33 Bar Code Scanners, and 88 M.F.D Multi functional Printers to be purchased by the Department of Public Library.
3. To approve the technical specifications of 45 All-in-one computers, 03 Duplex A3 Size Printers, 03 Monochrome MFP A4 Printer, to be purchased by Government Printing Press.
4. To approve the technical specifications 01 Risograph to be purchased by the KSEEB, Malleshwarm, Bengaluru.

1. SSA AND DSERT -HKDB Schools.

Director, DSERT and Deputy Director, Samgra Shikshana briefed the Committee that the Department has to purchase All-in-one computers, All-in-one Local Cache Servers for 717 Government High Schools, Laptops and LCD Projectors for TALP Schools teachers. UPS-with Batteries for the HKDB Schools and 9000 TABs for Govt. schools for the implementation of SATS. The Committee went through the specification and Principal Secretary to the Government suggested to remove the specification AMD for the processor. And the committee observed that the specifications for AIO computer and AIO server are same except the AIO server is having integrated DVD Writer. Also, it is observed that the Laptop provided to the School also has an integrated DVD Writer. The Committee suggested that, One External DVD Writer may be provided to each school and avoid the Integrated DVD writer for Laptop as well for All In One (server). For



Laptops the committee suggested to purchase 14 inch or higher monitor. It reduces the cost, and increase the power backup.

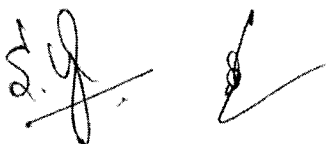
As part of the implementation of SATS application in Government Schools, it was proposed to procure 9000 TABs during the TAP committee meeting held during September 2017. The Project Manager, NISG has informed that the tender for procurement of TABs has been cancelled twice due to insufficient responses. The proposed change to include the dual Micro USB ports (one for charger and one for data connectivity) has been rejected as it may reduce the competition. It was recommended to keep the generic specifications to have maximum competition.

2. Department of Public Library

Director, Public Library briefed the Committee that the Department has to purchase 217 All-in-one Desktops, 83 UPS, 28 Bar Code Printers, 33 Bar Code Scanners, and 88 M.F.D Multi functional Printers. The Committee went through the specification requested by the Director, Public Library and approved the specification of All-in-one Desktops. Principal Secretary to the Government suggested to opt Intel I-3 processer and suggested to add specification of Scanner to the Multi Functional Printers.

3. Government Printing Press, Bengaluru.

Director, Printing Press briefed the committee about the need for modernizing the existing old and redundant Computer and Computer related Peripheral devices. Director requested the approval of technical specification 45 All-in-one computers, 03 Duplex A3 Size Printers, 03 Monochrome MFP A4 Printer, has to be purchased by Government Printing Press Begaluru. The Committee went through the specification and suggested to prepare fresh specifications with the help of NIC as the needs and necessary of the department.

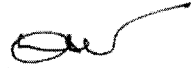


4. KSEEB, Malleshwaram, Bengaluru.

Director, KSEEB briefed the committee about the need for 01 Risograph to be purchased by the KSEEB, Malleshwaram, Bengaluru. Risograph is helpful to send circulars, and press meet. The specifications approved by the committee.

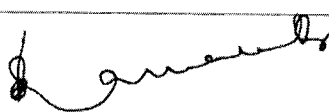


The TAP Committee approved the specification of devices listed below:

| Sl No | Office | Particulars of the devices | devices approved |
|-------|-----------------------------|---|--|
| 1 | Samagra Shikshana and DSERT | All-in-one computers All-in-one Local Cache Sever Laptops LCD Projectors UPS-with Batteries TABs | Annexure-1 Annexure-2 Annexure-3 Annexure-4 Annexure-5 Annexure-6 |
| 2 | Library | 217-All-in-one Desktops 83-UPS 28-Bar Code Printers 33-Bar Code Scanners and 88-M.F.D Multi functional Printers | Annexure-7 Annexure-8 Annexure-9 Annexure-10 Annexure-11 |
| 3 | KSEEB | 01-Risograph | Annexure-12 |


(S.R. Umashankar)

Principal Secretary
Primary & Secondary Education
and Chairman, TAP Committee

List of TAP Committee members participated in the meeting:


| Slno | Name and address of the TAP Member | Signature |
|------|---|--|
| 1 | Prof. S Ramanathan, Head CND, Bengaluru |  |
| 2 | Sri. Venugopal, Scientist, Electronics & Radar Development Establishment, Bengaluru |  |
| 3 | Sri Thangavelu, C Technical Director NIC |  |

Annexure-1

SSA AND DSERT

Specifications for the All-in-One Computers for HKDB Schools




| S.No | Parameter / Component | Specifications |
|------|-----------------------|---|
| 1 | Processor | Intel Core i3 8th generation processor - 3.5 GHz, 2 MB Cache ; or equivalent or higher |
| 2 | Chipset & Motherboard | Compatible chipset with processor & OEM Motherboard with Hardware TPM 2.0 |
| 3 | RAM | 8 GB DDR 4 2400 MHz expandable up to 16 GB with one free DIM Slot. |
| 4 | Hard Drive | 1 TB SATA HDD @ 5400 RPM or higher |
| 5 | Audio | Integrated HD Audio with two internal Speakers (2W X 2) |
| 6 | Ethernet | Integrated Gigabit Ethernet Connection (10/100/1000 Mbps) |
| 7 | Wi-Fi | 802.11 b/g/n or higher |
| 8 | Display Monitor | LED Display Monitor - 19.5" or higher |
| 9 | Keyboard | USB Keyboard (Same Make as PC) |
| 10 | Mouse | USB 2 button optical Scroll mouse (Same make as PC) |
| 11 | Ports | 4 USB ports or higher (minimum 2 USB 3.0), 1 Ethernet (RJ-45), 1 HDMI / DP Port, headphone / microphone combo jack (3.5 mm) |
| 12 | Webcam & Mic | Integrated HD Webcam with Microphone |
| 13 | Certifications | For OEM : ISO 9001 : 2015 or Latest For PC : MS Windows, Energy Star, EPEAT |
| 14 | Operating System | Pre-loaded Ubuntu Linux (latest version) |
| 15 | Software Applications | Open Office (Apache / Libre) latest version |
| 16 | Antivirus | Pre-Loaded with Latest version of Antivirus Symantec / McAfee/ NOD32/ eTrust /Kaspersky /eScan / Quickheal |
| 17 | Accessories | Connecting cables and driver media should be supplied |
| 18 | Warranty | 5 Years onsite comprehensive warranty |



Annexure-2

Specifications of All-in-One Local Cache Server for HKDB Schools

| S.No | Parameter / Component | Specifications |
|------|-----------------------|---|
| 1 | Processor | Intel Core i3 8th generation processor or Higher |
| 2 | Chipset | Compatible chipset with processor |
| 3 | RAM | 8 GB DDR 4 2400 MHz RAM expandable up to 16 GB |
| 4 | Hard Drive | 1 TB SATA HDD @ 5400 RPM or higher |
| 5 | Audio | Integrated HD Audio with two internal Speakers (2W x 2) |
| 6 | Ethernet | Integrated Gigabit Ethernet Connection (10/100/1000 Mbps) |
| 7 | Wi-Fi | 802.11 b/g/n or higher |
| 8 | Display Monitor | LED Display Monitor - 19.5" or higher |
| 9 | Keyboard | USB Keyboard (Same Make as PC) |
| 10 | Mouse | USB 2 button optical Scroll mouse (Same make as PC) |
| 11 | Ports | 4 USB ports or higher (minimum 2 USB 3.0), 1 Ethernet (RJ-45), 1 HDMI / DP Port, headphone / microphone combo jack (3.5 mm) |
| 12 | Webcam & Mic | Integrated HD Webcam with Microphone |
| 13 | Certifications | For OEM : ISO 9001 : 2008 or Latest |
| | | For PC : MS Windows, Energy Star, EPEAT |
| 14 | Operating System | Pre-loaded Ubuntu Linux |
| 15 | Software Applications | Pre Load with open office |
| 16 | Antivirus | Pre-Loaded with Latest version of Antivirus Symantec / MacAfee/NOD32/eTrust /Kaspersky /eScan / Quickheal |
| 17 | Accessories | With required connecting cables and driver media should be supplied. |
| 18 | Warranty | 5 Years onsite comprehensive warranty |

Annexure-3

Specifications of Laptops for HKDB Schools for TALP

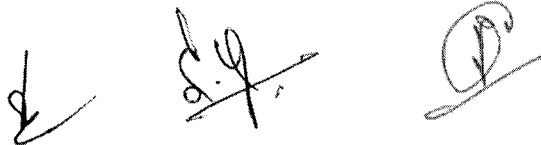
| S.No | Parameter / Component | Specifications |
|------|-------------------------|---|
| 1 | Processor | Intel Core i5 - 8 th Generation - 1.6 GHz ; 2 MB Cache; or equivalent or higher |
| 2 | Display | 14" HD or higher; Resolution - 1366 x 768; LED backlight; 16:9 aspect ratio |
| 3 | Memory | 4 GB DDR 4 with 1 free slot upgradable to 16 GB |
| 4 | Secondary Storage | 1 TB HDD @ 7200 RPM or higher |
| 5 | Connectivity technology | WiFi 802.11 b/g/n/ac Adapter |
| 6 | Keypad | Spill Resistant Keypad with Touchpad |
| 7 | Optical Drive | DVD Read/Write (External with USB Connector) |
| 8 | Ports / Card reader | Minimum 3 USB ports with at least one USB 3.0, Media Card reader , VGA / HDMI port, Ethernet RJ45 port |
| 9 | Battery | Minimum 4 hour backup during normal usage |
| 10 | Audio and Visual | Built in microphone and stereo sound speakers, Integrated HD Webcam |
| 11 | Laptop Casing | Strong Hinges with Casing for longer durability and stability for good quality support structure. |
| 12 | Weight | Not more than 2.2 Kgs including battery |
| 13 | Carry Case | Good quality backpack should be provided by the vendor |
| 14 | Operating System | Windows 10 - 64 Bit Professional edition and Preloaded Ubuntu Linux Dual boot |
| 15 | Software | Open Office (Apache / Libre) latest version |
| 16 | Antivirus | Pre-Loaded with Latest version of Antivirus Symantec / McAfee/NOD32/eTrust /Kaspersky /eScan / Quickheal with 5 Years Support |
| 17 | Certifications | EPEAT Registered, Energy Star 6.0 or higher |
| 18 | Warranty | 5 Years onsite comprehensive warranty for laptop and 3 years for battery |



Annexure-4

Specifications of LCD Projectors for HKDB Schools

| S.No | Parameter / Component | Specifications |
|------|-----------------------|---|
| 1 | Native Resolution | XGA (1024 x 768) or higher |
| 2 | Brightness | 3300 Lumens or higher |
| 3 | Lamp life | 6,000 hours or higher |
| 4 | Video compatibility | NTSC, PAL |
| 5 | HDTV | 720p, 576p, 576i, 480p, 480i |
| 6 | Audio | Integrated Audio (speaker in-built) and Audio Connector |
| 7 | Zoom/focus | Manual |
| 8 | Display input | VGA, HDMI/DVI (with converter), USB, Composite A/V |
| 9 | Aspect ratio | 4:3 and 16:9 |
| 10 | Remote | Full function remote |
| 11 | Connectivity | HDMI/VGA, USB, PC Less presentation |
| 12 | Case | Suitable carry case |
| 13 | Accessories | Power cord, Mouse control accessory for computer, HDMI, VGA , Audio cables – 4m length, full function remote |
| 14 | Others | Auto shutoff functionality to save lamp life when projector controls are not operated after a certain time period |
| 15 | Warranty | 5 years onsite warranty on the Projector, 4,000 hours on Light Source (Bulb has to be replaced for less than 4,000 hours calculated at 200 school days @ 4 hours per day for 5 years) |



Annexure-5

Specifications of UPS - with Batteries (3 KVA) for HKDB Schools

| S.No | Parameter / Component | Specifications |
|------|-----------------------|--|
| 1 | Type | True Online, Double Conversion Technology |
| 2 | Capacity | 3 KVA |
| 3 | Input Frequency | 50 Hz +/- 5% |
| 4 | Input Voltage | 160 V - 260 V |
| 5 | Output Frequency | 50 Hz +/- 0.5 Hz |
| 6 | Output Voltage | 230 V +/- 1% |
| 7 | Input Power Factor | > 0.90 |
| 8 | Waveform | Pure Sine wave |
| 9 | Alarm | On Battery, Low Battery, UPS Overload |
| 10 | Technology | IGBT based PWN technology |
| 11 | Battery type | SMF |
| 12 | Back-up | 2 hours |
| 13 | Battery AH | 100 AH |
| 14 | No. of Batteries | 8 nos |
| 15 | DC Voltage (input) | 96 V |
| 16 | VAH | 9600 VAH |
| 17 | Overload capacity | 150% for 1 minute; 110% for 10 minutes |
| 18 | Inverter Efficiency | 90% |
| 19 | Overall Efficiency | 90% |
| 20 | Regulation | 0.43% |
| 21 | THD | 1.5% |
| 22 | Warranty | 5 years onsite warranty on UPS and 3 years on-site warranty on battery |

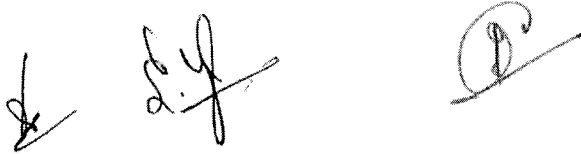


Annexure-6

Specifications for the TABs (Total Purchase of 9000)

| S.No. | Parameter / Component | Specifications |
|-------|-----------------------|--|
| 1 | Processor | Minimum 1.3 GHz Quad core Higher |
| 2 | SIM | GSM SIM Card slot |
| 3 | Network Support | 2G, 3G & 4G or LTE Support |
| 4 | Display | Minimum 8" inches Capacitive touch screen or higher Minimum resolution 1280x800 pixels |
| 5 | Internal Storage | 16 GB or Higher |
| 6 | RAM | 2 GB or above |
| 7 | Connectivity | -Mandatory EDGE / 3G & 4G or LTE Mobile data support -802.11 b/g/n or higher |
| 8 | Camera | Primary (Rear) – 5 MP or higher with Auto Focus Feature Secondary camera – 2 MP or Higher |
| 9 | Operating System | Android 6.0 or higher |
| 10 | Audio | Internal Speaker; 3.5 mm Audio Jack |
| 11 | Location Technology | GPS & AGPS facility for capturing the location coordinates |
| 12 | Certification | BIS certification, CE/FCC or ROHS |
| 13 | Battery | Minimum 4000mAh Battery or Higher |
| 14 | Bluetooth | Bluetooth v4.0 or higher |
| 15 | Warranty | 3 years warranty at district level |
| 16 | Charger | Standard Charger for India |
| 17 | Cover | Durable Flip case cover |

Additional Requirement: There should be a capability to attach UIDAI approved external biometric authentication device. Biometric reader in the tablet itself is not needed.



Annexure-7

Department of Public Library

Specifications for All-in-one computers (Total Purchase of 217)

| S.No. | Parameter / Component | Specifications |
|-------|-----------------------|--|
| 1 | Processor | (X86 Intel 8th Generation Hexa core I3-8600 with 1.6GHz speed or Ryzens 51600. |
| 2 | Chipset | Chipset Compatible to the above Processor. |
| 3 | Mother board | OEM Motherboard. |
| 4 | RAM | 4GB DDR4 RAM or higher, Audio with Internal speakers 802.11 b/g/n/ac. |
| 5 | Hard Drive | 1 TB SATA HDD with 7200 RPM or higher |
| 6 | Audio | Integrated HD Audio Speakers |
| 7 | Wi-Fi | 802.11b/g/n/ac |
| 8 | Ethernet | Integrated Gigabit Ethernet Connection (10/100/1000 Mbps) |
| 9 | Display Monitor | 21.5 Full HD (1920x1080) LED back light, Anti-Glare Display or higher |
| 10 | Keyboard | USB Keyboard (Same make as PC) |
| 11 | Mouse | USB 2 button Optical Scroll mouse (Same make as PC), For OEM |
| 12 | Ports | Minimum 4 USB with at least 2 USB 3.1/3.0, 1 No Ethernet (RJ-45) Display port, HDMI one head phone Microphone combo jack |
| 13 | Webcam & Mic | Integrated HD webcam with Microphone |
| 14 | Certification | For OEM: ISO 9001 :2008 or Latest ; <i>Energy Star Spec</i> |
| 15 | Operating System | Preloaded Genuine <i>Linux/Windows</i> , <i>Ubuntu Linux or Windows?</i> |
| 16 | Power Supply | Internal External power Adapter with Minimum 85% power Efficiency or higher |
| 17 | Accessories | With required connecting cables and driver media should be supplied |
| 18 | Warranty | 3 years Onsite comprehensive |

Annexure-8

Specifications for the UPS (Total Purchase of 83)

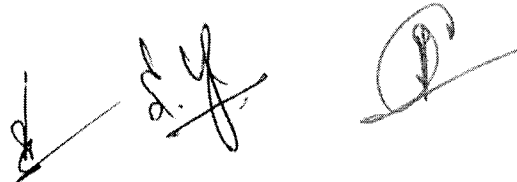
| S.No. | Parameter / Component | Specifications |
|-------|-----------------------|---|
| 1 | Type | On line 2 KVA,60 min Back up Time |
| 2 | Capacity | In[put Frequency.50 Hz+ 5% |
| 3 | Input Voltage | 160V-270V |
| 4 | Wave form | pure sine wave |
| 5 | Alarm on Battery | Low Battery UPS Over load |
| 6 | Technology | IGBT based PWM technology, with isolation transform |
| 7 | Battery Make | Preferred Panasonic/ Southern. YUSA /Exide /Sc.B./Amar raj/Relic ell. |
| 8 | Over load capacity | 150% for 1 minute, and 125% for 10 minutes |
| 9 | Warranty | 3 years warranty on site comprehensive including batteries |
| 10 | Protection | Automatic discharge Protection with self-test Features Over load Surge Protection Input fault cold Low battery, Battery over charge Output circuit charging current Circuit Inverter over tempe |



Annexure-9

Specifications for the BAR CODE Printers (Total Purchase of 28)

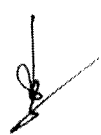

| S.No. | Parameter / Component | Specifications |
|-------|-----------------------|-------------------------------------|
| 1 | Printing Method | Direct thermal and Thermal transfer |
| 2 | Print Speed | Minimum 6 Ips |
| 3 | Resoulation | 203 DPI |
| 4 | Max Print width | 108 mm |
| 5 | Max Print length | 2.286 mm |
| 6 | Label Roll Capacity | 127 mm |
| 7 | Memory | 2MB Flash |
| 8 | Interface | Ethernet USB Parallel |
| 9 | Bundled software | Labeling software/driver sw. |



Annexure-10

Specifications for the BAR CODE Scanners (Total Purchase of 33)




| S.No. | Parameter / Component | Specifications |
|-------|-----------------------|-----------------------------------|
| 1 | Light Source | 650 nm Visible Laser diode. |
| 2 | Depth of field | 35-200mm |
| 3 | Screen rate | 500 scans per second. |
| 4 | Scan Angle | 52 degrees, Pitch/Roll/Skew angle |
| 5 | Print Contract | 30% @ UPC/EAN100% |
| 6 | System Interfaces | Key board RS,232c.HID USBW |
| 7 | Power in put Voltage | 5 volt DC+ 10% |

Annexure-11

Specifications for the M.F.D Multi Functional Printers (Total Purchase of 88)

| S.No. | Parameter / Component | Specifications |
|-------|------------------------------|---|
| 1 | Printing Method | Mono laser |
| 2 | Print Speed | Minimum 40+/-3 |
| 3 | Print Resolution | 1200x1200 dpi |
| 4 | Processor | 600 MHZ or more |
| 5 | Memory | 256 MB or more |
| 6 | Print Languages | PCL,6, Postscript level 3 emulation |
| 7 | Paper Input | 250 sheets input tray and 50 pages bypass tray |
| 8 | Duplex printing | built in automatic |
| 9 | Compatible operating systems | Win 7 (32/64 bit) win 8 (32/64 bit) Windows XP Linux. |
| 10 | Warranty | 3 year on site comprehensive. |

Annexure-12

Karnataka Secondary Education Examination Board

Specifications for the Risograph Specifications (Total Purchase of 01)

| S.No. | Parameter / Component | Specifications |
|-------|-----------------------|--|
| 1 | Master Making | Thermal Digital |
| 2 | Master Making Speed | 21 seconds |
| 3 | Resolution | Scan 300dpi×600dpi Print 300dpi×600dpi |
| 4 | Document Type | Sheets, Book |
| 5 | Paper size | MAX 297×420mm MIN 100×148mm (with optional ADF) A3, A4, A5, |
| 6 | Capacity | Feeder 1,300 sheets |
| 7 | Paper weight | 45 - 250gsm |
| 8 | Operation Panel | Full color touch panel |
| 9 | Image modes | Text, Photo, Text/Photo, Pencil |
| 10 | Print speed | 60 - 150 ppm 5step |
| 11 | Master feeding | Fully automatic |
| 12 | Power source | 100-240V, 50/60Hz, 1.6-0.8A Max speed printing MAX. 135W Energy save mode MIN. 10.2W |
| 13 | Warranty | 5 Years Comprehensive Onsite warranty. |

