#### Government of West Bengal Higher Education Department CS Branch Bikash Bhavan, Salt Lake, Kolkata-91.

No.840-Edn(CS)/1G-08/16.

Kolkata, the 14<sup>th</sup> September, 2016.

From : Deputy Secretary to the Govt. of West Bengal.

To : The Director of Public Instruction, West Bengal.

Sub : Setting up virtual classroom in Government-aided Colleges in West Bengal. Sir,

Knowledge is freely available today through the internet. New material which can be accessed from the World Wide Web, is changing the nature of education and education methodologies. To remain in the forefront of the knowledge society, it is critical that ITeS be harnessed in the State's higher Education Space so that the students are equipped with the latest knowledge and are competitive on the national as well as global scale.

With a view to bringing the virtual world and its multiplier advantages to the higher Education sector, it has been decided to introduce virtual classrooms in phases in Government-aided Colleges. A virtual classroom is envisaged to be an existing classroom or a lecture theatre where a high-end desk top computer, a heavy duty projector, audio system, high speed datalink/wifi, etc. are to be installed to enable presentation of audio visual education material, live streaming of lectures or discussions etc.

To start with, one virtual classroom is envisaged to be set up in each of the Government aided Colleges. To ensure standard hardware specifications, illustrative hardware items and their specifications are appended. The Government aided Colleges may procure the items on their own following the due procedures for procurement.

It is envisaged that the virtual classrooms, in the first phase, should be operational by the end of November, 2016, at the latest. The Government-aided Colleges in the State are to be requested to take advance necessary action in the matter. The fund @ Rs.3 lakhs for virtual classroom is being released shortly.

Yours faithfully,

SH Deputy Secretary

Kolkata, the 14<sup>th</sup> September, 2016.

No.840-/1(5)-Edn(CS)/1G-08/16.

Copy forwarded for information to :

- 1. Principal/TIC..... Govt. Colleges;
- 2. The Joint Secretary, (IT) for uploading on the Website;
- 3. The P.S. to the Hon'ble MIC, Higher Education Department, Bikash Bhavan, Salt Lake, Kolkata 700 091;
- 4. The Sr. P.A. to the Principal Secretary, Higher Education Department, Bikash Bhavan, Salt Lake, Kolkata 700 091;
- 5. The Sr. P.A. to the Secretary, Higher Education Department, Bikash Bhavan, Salt Lake, Kolkata 700 091.

## Heras

## Deputy Secretary

Nikhil/16

# Government of West Bengal Department of Higher Education

# Virtual Classroom

Illustrative Hardware Items and Minimum Specifications

1. Desktop computer of latest configuration

Intel Q85 chipset / Intel core-i5 4570 or higher processor / Intel HD graphics 4600/ 500 GB 7.2K rpm, SATA 6.0 Gb/s SMART IV HDD / Microtower Form factor /4 GB DDR-3 RAM /Gigabit LAN / DVD writer / Windows 8.1 professional / HD Realtek audio with internal speaker / pre-boot diagnostic at bios level by OEM only / 18.5 inch LED TFT monitor **OR EQUIVALENT SPECIFICATIONS**. The product can be of any reputed and established brand with reliable after-sales service. 3 year onsite warranty. 600 VA UPS with 10-15 minutes power back up.

2. Short / Ultra short throw projector

Suitable for day light conditions in large lecture theatre and for a picture size of at least 8 feet by 6 feet/ DLP Technology or Laser / LED technology / 3000 ANSI Lumens /XGA / SmartECO power saving technology / 10000 hours long lamp life / Throw ratio 0.61 / Blu Ray Full HD 3D support / Mobile playback through wireless from Android , i-phone, etc / contrast ratio 13000:1 ultra sharp or above. Warranty: 1000 lamp hours or 1 year whichever is earlier. The product can be of any reputed/ established brand with onsite warranty and reliable after-sales service.

3. Wall mount adjustable bracket (extendable up to 4 ft.) for projector, with sufficient load bearing capacity

4. Wall-mounted white interactive board (not less than 6 foot X 4 foot) fully integrated with the hardware system to record/ save hand-written data in the computer's HDD.

5. High-speed Wi-Fi for PC

6. Public Address/ Sound system suitable for the size of the virual classroom/ lecture theatre, with one lapel/collar mike for the teacher and one cordless microphone.

7. Camera of suitable resolution (with digital zoom function) for video conferencing / recording lectures, along with software platform/ application license (as applicable) with capability of multi-point video and audio interaction (subject to availability of sufficient bandwidth), with recording facility, for recording lecture/ class room interactions.

8. Procurement of the hardware equipment shall be made as per State Government's Financial Rules. For obtaining the price quotation through DGS&D or tender or placing order directly on a State Government undertaking (as per relevant G.O.s), etc., the quoted price should preferably be on turnkey basis, i.e. it should include delivery, installation and commissioning of the virtual classroom.

### NOTE

THE ABOVE SPECIFICATIONS ARE ILLUSTRATIVE ONLY.

THE OBJECTIVE IS TO PROCURE HIGH QUALITY AND DURABLE/ LONG LASTING HARDWARE.

OWN BUDGET/ FUNDS PERMITTING, THE COLLEGE AUTHORITIES ARE WELCOME TO PROCURE ITEMS OF HIGHER SPECIFICATIONS THAN THOSE GIVEN ABOVE.

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