Rc. No.1/Techinical Verification of VC &DC/AC-9/2018-19   **Date: 28-02-2018**

Sub: Constitution of Technical Verification Committee to ensure proper delivery and functionality of Virtual Classroom and Digital Classroom Equipment in GDCs-Submission of Report - Orders – Issued.

* * *

ORDER:

In view of the supply of Virtual Classroom and Digital Classroom equipment to 56 RUSA Colleges and Virtual Classrooms to 88 Non-RUSA Colleges, Principals of GDCs are directed to constitute **Technical Verification Committee** in their respective colleges to verify whether the equipment received is in consonance with the invoice and whether the equipment is functioning.

The Technical Verification Committee should comprise the following Members:

1. Principal of the College
2. RUSA/IQAC Coordinator
3. A Technical Expert (Computer science faculty/ any expertise who can evaluate ICT Products supplied by the concerned vendors)

In case of RUSA colleges RUSA Coordinator, and in case of Non RUSA Colleges IQAC Coordinator shall be designated as Nodal Officer for Digital and Virtual Class in the College.

The Committee should submit a Report to the undersigned in 3-5 days to this office after verification in accordance with the specifications document enclosed to this circular. A hard copy duly signed by the committee shall be send through post.

The Principals are instructed to comply with these Orders scrupulously.

(Orders of Spl.CCE obtained in the note file)

For Spl Commissioner of Collegiate Education

Enclosure:
1. Specifications Document
2. Technical Report (format)

Copy to :
RJDCEs for necessary action

PROCEEDINGS OF THE COMMISSIONER OF COLLEGIATE EDUCATION
A.P. VIJAYAWADA
Present : Smt. Sujata Sharma, I.A.S

Rc. No.1/Techinical Verification of VC &DC/AC-9/2018-19   Date: 02-03-2018

Sub: Constitution of Technical Verification Committee to ensure proper delivery and functionality of Virtual Classroom and Digital Classroom Equipment in GDCs- Submission of Report - Orders – Issued.

* * *

ORDER:

In view of the supply of Virtual Classroom and Digital Classroom equipment to 56 RUSA Colleges and Virtual Classrooms to 88 Non-RUSA Colleges, Principals of GDCs are directed to constitute **Technical Verification Committee** in their respective colleges to verify whether the equipment received is in consonance with the MoU document and whether the equipment is functioning.

The Technical Verification Committee should comprise the following Members:

1. Principal of the College
2. RUSA/IQAC Coordinator
3. A Technical Expert (Computer science faculty/ any expertise who can evaluate ICT Products supplied by the concerned vendors)

In case of RUSA colleges RUSA Coordinator, and in case of Non RUSA Colleges IQAC Coordinator shall be designated as Nodal Officer for Digital and Virtual Class in the College.

The Committee should <u>submit a Report to the undersigned</u> in 3-5 days to this office after verification in accordance with the specifications document enclosed to this circular. A hard copy duly signed by the committee shall be send through post.

The Principals are instructed to comply with these Orders scrupulously.

(Orders of Spl.CCE obtained in the note file)

For Spl Commissioner of Collegiate Education

Enclosure:
1. Specifications Document(MoU)
2. Technical Report (format)

Copy to :
RJDCEs for necessary action

Government of Andhra Pradesh
Commissionerate of Collegiate Education

Rc. No.3/Technical Verification of VC/AC-9/2018-19   dated : 26.6.2018

CIRCULAR

Sub: Collegiate Education Dept. – 88 Non-RUSA GDCs – Monitoring of installation of Virtual Class rooms - Technical Verification & Functionality checking – Certain instructions – Issued – reg..

Ref : 1. Rc. No.1/Technical Verification of VC &DC/AC-9/2018-19 Date: 06-03-2018
2. Letter from Uneecops Technologies Ltd. vide No.: Unee/2018/079 dated : 19.04.2018

*****

The Commissionerate of Collegiate Education has established 101 Virtual Classrooms in 88 Non-RUSA colleges. The equipment was delivered and installed in 75 colleges as per your reference 2 cited above.

The under mentioned Principals of Non-RUSA GDCs are requested to come online through the existing Net connectivity with the O/o CCE, A.P., Vijayawada to verify the functionality of Virtual Classrooms(101)installed in their respective colleges. Sri P.V.K.Patanjali, IT Advisor to Special Chief Secretary of Higher Education, A.P. will guide and monitor the said online conference.

Academic Guidance Officer(AGO) and Academic Officer & Nodal Officer for Virtual Classroom shall coordinate the exercise from Headquarters in checking the functional status of Virtual Classrooms in the Non-RUSA colleges.

(Orders obtained in the note file)
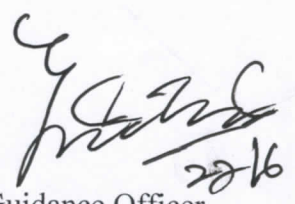
Sd/- Smt.Sujata Sharma, I.A.S
Special Commissioner of Collegiate Education

To

All the Principals of Non-RUSA GDCs

Copy to all the RJDCEs in the state

// Attested//

Academic Guidance Officer

O/o CCE

CIRCULAR

Circular-3/APCCE/Academic Cell/AC-09/2021   **Date:** 17th February, 2022

Sub: Commissionerate of Collegiate Education Utilization and Maintenance of Virtual and Digital Class Rooms in the Colleges - Reg.

* * *

Use of ICT in teaching learning enables the student to understand the concepts easily under virtual and digital mode. Students in remote area can also take the advantage of learning and understanding the concepts at an affordable time and cost. Commissionerate of Collegiate Education has started use of Virtual And Digital classes in Government Degree College in the Year 2017.

The Principals are instructed to follow the below guidelines for utilization and maintenance of Virtual and Digital Class rooms.

I.   Utilization of Virtual and Digital Class Rooms

1.   All the Principals are requested to ensure the utilization of Digital and Virtual classrooms available in the college

2.   Encourage the staff members to prepare PPTs and use the available digital classrooms for better understanding of the topics.

3.   The DRC should take initiation for utilizing the resources available in the DRC centre to overcome any shortage of faculty if any in a subject in nearby colleges.

4.   Prepare time-table for the usage of digital and virtual classrooms.

5.   A separate Log register is to be maintained for each digital or virtual class room for the classes taken by the faculty, a draft proforma is enclosed as under.

S No	Date	Time	Name of the Faculty	Subject	Class	Topic Covered	# Students Present	Signature of the Staff Member

II.   Maintenance of Virtual and Digital Equipment

The principals of the college should maintain the both virtual and digital equipment in proper and working condition and procure any damaged or not working parts with internal resources of the college as per the rules and procedures.

Academic Guidance Officer

1.1. Portable Interactive Device

Cybernatyx Portable Interactive Device – Interactive Whiteboard solution

Technical Specifications:

Movement Detection Technology	3-D Optical
Tracking Active Area (max projection size recommended)	Up to 100" for 16:9 aspect ratio (Wide angle) & up to 80" for 4:3 aspect ratio
View angel (Vertical)	95 deg
View angel (Horizontal)	110 deg
View angel (Diagonal)	170 deg
T/R Range	0.6 / 0.4 / 0.2 / 0.16
Tracking Speed	60-70 FPS (can be extrapolated upto 200 FPS)
Ambient Light Resistance Technology	830nm +/- 20 & 650nm +/-20 dual band tracking technology (Visible and IR bands)
Simultaneous Touch Point Support	255 (System configuration dependent)
Calibration Technology	Automatic as well as Manual Calibration
Connectivity Interface	Mini USB
Max USB Transmission Distance	15 ft
Power Requirement	5 V
Power Consumption	< 1W
Operating & Storage Environment	Temperature : -10 to +60 degree; Humidity: 0% to 95%
Accuracy	+ / - 2 px
Response Time	Upto 195Mn dots/sec
Native Resolution	752 x 480 (can be extrapolated upto
Data Refresh Rate	Upto 195 million dots/sec, USB bandwidth around 200 MBPS
Optimised Cursor Jittering	7 point bezier algorithms histogram

1.2. White Board

6 feet x 4 feet Hi- quality white board for writing & Projection application

1.3. Green Board

5 feet x 4 feet Hi- quality green board for writing

1.4. Short Throw Projector
BenQ Short Throw Projector
Specifications:

Projection System	DLP
Native Resolution	XGA(1024X768)
Brightness	3000AL
Contrast Ratio	13000:1
Display Color	1.07 Billion Colors
Lens	F=2.6 f=6.9mm
Aspect Ratio	Native 4:3 (5 aspect ratio selectable)
Throw Ratio	0.61
Clear Image Size / Maximum Image Size	60"~120" / 300"
Zoom Ratio	Fixed
Lamp Type	190W
Lamp Mode (Normal/Economic/SmartEco/LampSave)	4500/6000/6500/10000 hours
Keystone Adjustment	1D, Vertical +/- 30 degrees
Projection Offset	130% ±5%
Resolution Support	VGA(640 x 480) to UXGA(1600 x 1200)
Horizontal Frequency	15~102KHz
Vertical Scan Rate	23~120Hz
Compatibility	HDTV Compatibility 480i, 480p, 576i, 576p, 720p, 1080i, 1080p (Please refer to User's Manual for detailed support timing.)

Interface	Computer in (D-sub 15pin)	x 2(Share with component)
	Monitor out (D-sub 15pin)	x 1
	Composite Video in (RCA)	NA
	S-Video in (Mini DIN 4pin)	NA
	HDMI	NA
	Audio in (Mini Jack)	NA
	Audio out (Mini Jack)	NA
	Audio L/R in (RCA)	NA
	Speaker	NA
	USB (Type Mini B)	x1 (Download & page/down)
	RS232 (DB-9pin)	x 1
	LAN (RJ45)	NA
Dimensions	Dimensions(W x H x D)	287.3 x 114.4 x 232.6mm
	Weight	2.5kg(5.5lbs)
Power	Power Supply	AC100 to 240 V, 50 to 60 Hz
	Power Consumption	270W(typical), Standby<0.5W
Audible Noise	32/28 dBA (Normal/Economic mode)	
On-Screen Display Languages	Arabic/Bulgarian/ Croatian/ Czech/ Danish/ Dutch/ English/ Finnish/ French/ German/ Greek/ Hindi/ Hungarian/ Italian/ Indonesian/ Japanese/ Korean/ Norwegian/ Polish/ Portuguese/ Romanian/ Russian/ Simplified Chinese/Spanish/ Swedish/ Turkish/ Thai/ Traditional Chinese (28 Languages)	
Picture Modes	Dynamic/Presentation/sRGB/Cinema/(3D)/User 1/User 2	

Accessories	Standard	Optional	
	Lens Cover	PointWrite	PW02
	Remote Control w/ Battery	FingerTouch	PT01
	Power Cord (by region)	Spare Lamp Kit	5J.J9A05.001
	User Manual CD	Ceiling Mount	CM00G3
	Quick Start Guide	Wall Mount	WM06G3
	Warranty Card (by region)	Carry bag	5J.J3T09.001
	VGA(D-sub 15pin) Cable		

1.5. Visual Presenter

New Vission Visualizer

Specifications:

- Capture   Size A4
- Resolution   1600 x 1200
- Sensor   CMOS 2.0 mega pixel
- Picture Format   JPG / TIF / PDF / BMP / TGA / PCX / PNG / RAS
- Doc Format   PDF / WORD / TXT
- Video Format   AVI / WMV
- Sensor Element   CMOS
- Interface Type   USB2.0
- Light Source   Natural+ LED Supplement light
- Accessories   Document camera, CD-ROM, USB-cable, Users Manual
- USB Cable length   2.0 Meters
- Power supply   USB 2.0
- Max. Shooting Area   A4

1.6. Mini PC with Monitor, Keyboard and Mouse

Specifications:

Processor	Intel Pentium processor N3700 (2.40 GHz, Quad Core 6W TDP
Graphics	Intel HD Graphics
	One HDMI 1.4b port supporting an ultra-high definition 4K 30 Hz display
	One VGA port
System Memory	4 GB RAM
Storage	500 GB HDD
Peripheral Connectivity	Integrated Gigabit LAN
	Four super Hi-speed USB 3.0 ports (two back panel ports and two fron ports including one charging port)
	Two additional Hi-speed USB 2.0 ports via internal header
	Intel Wireless-AC 3165 Dual Band Wireless 801.11ac, 1X1, upto 867 Mbps
	Dual Mode Bluetooth *4.0
Audio	Intel HD audio via HDMI 1.4b supporting 8 channel digital audio (7.1 surround sound)
	Intel HD audio (headset/ microphone)
	TOSLINK optical audio
Front panel Header	Reset, HDD LED, Power LEDs, Power on/ off
Mechanical Chasis Size	4.53"X 4.37" X 2.03"
	115mm X 111mm X 51.6 mm
Monitor size	15”

1.7. UPS
Power Backup – 600 VA UPS

Specifications:

CAPACITY	VA/W		600VA/360W
INPUT	Voltage		230VAC
	Voltage Range		140-300VAC
	Frequency		>40Hz (Auto Sensing)
OUTPUT	Voltage		230VAC
	Voltage Regulation (Batt. Mode)		+/-10%
	Frequency		50Hz
	Frequency Regulation (Batt. Mode)		+/-1 Hz
	Output Waveform		Modified Sinewave
BATTERY	Battery Type		12V7Ah x 1

1.8. Web Camera

- HD video calling (1280 x 720 pixels) with recommended system
- Video capture: up to 1280 x 720 pixels
- Photos: up to 5.0 megapixels (software enhanced)
- Built-in mic with Logitech RightSound™ technology
- Hi-Speed USB 2.0 certified (recommended)
- Universal clip fits laptops, LCD or CRT monitors
- Magix™ photo and video editing

1.9. Headphone/ Mic

- Sensitivity: -58 dBV/µBar, -38 dBV/Pa +/-4dB
- Frequency response:
- Headset: 20 Hz – 20,000 Hz
- Microphone: 100 Hz – 16,000 Hz
- 1.8-metre (6-foot) shielded cord
- 3.5 mm colour-coded plugs

1.10. Video conferencing license

- One-on-one and group calls
- Instant and scheduled meetings
- Unlimited meetings
- Unlimited audio
- Unlimited guest calling
- Directory-based calling
- Screen sharing
- One-on-one chat
- Group chat in a meeting room
- Mobile apps
- Presence status

1.11. Audio System
USB Speakers
Specifications:

Specifications
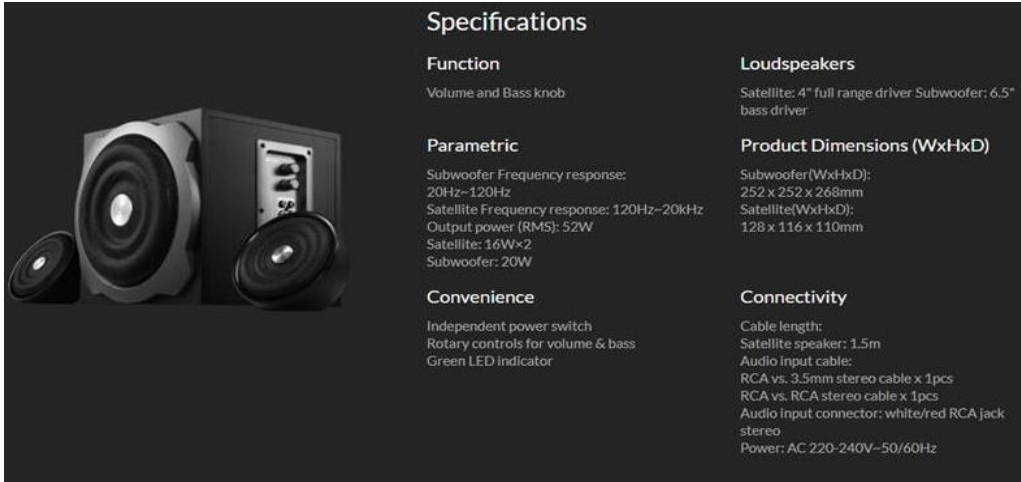
Function

Volume and Bass knob

Loudspeakers

Satellite: 4" full range driver Subwoofer: 6.5" bass driver

Parametric

Subwoofer Frequency response: 20Hz~120Hz
Satellite Frequency response: 120Hz~20kHz
Output power (RMS): 52W
Satellite: 16W×2
Subwoofer: 20W

Product Dimensions (WxHxD)

Subwoofer(WxHxD):
252 x 252 x 268mm
Satellite(WxHxD):
128 x 116 x 110mm

Convenience

Independent power switch
Rotary controls for volume & bass
Green LED indicator

Connectivity

Cable length:
Satellite speaker: 1.5m
Audio input cable:
RCA vs. 3.5mm stereo cable x 1pcs
RCA vs. RCA stereo cable x 1pcs
Audio input connector: white/red RCA jack stereo
Power: AC 220-240V~50/60Hz

Commissionerate of Collegiate Education

S.No	Name of the Item	Company	Description/Specification	Qty	Installed / Not	Working Condition/ Remarks
1	PC Intel	Intel	Intel Quad Core processor(4GB RAM, 500GB HDD	1		
2	Portable Interactive Device	Cybernetyx	Movement Detection Technology — 3-D Optical Tracking Active Area (max projection size recommended) — Up to 100" for 16:9 aspect ratio (Wide angle) & up to 80" for 4:3 aspect ratio View angel (Vertical) — 95 deg View angel (Horizontal) — 110 deg View angel (Diagonal) — 170 deg T/R Range — 0.6 / 0.4 / 0.2 / 0.16 Tracking Speed — 60-70 FPS (can be extrapolated upto 200 FPS) Ambient Light Resistance Technology — 830nm +/- 20 & 650nm +/-20 dual band tracking technology (Visible and IR bands) Simultaneous Touch Point Support — 255 (System configuration dependent) Calibration Technology — Automatic as well as Manual Calibration Connectivity Interface — Mini USB Max USB Transmission Distance — 15 ft Power Requirement — 5 V Power Consumption — < 1W Operating & Storage Environment — Temperature : -10 to +60 degree; Humidity: 0% to 95% Accuracy — + / - 2 px Response Time — Upto 195Mn dots/sec Native Resolution — 752 x 480 (can be extrapolated upto Data Refresh Rate — Upto 195 million dots/sec, USB bandwidth around 200 MBPS Optimised Cursor Jittering — 7 point bezier algorithms histogram	1		
3	White Board	Smart Vission	6 feet x 4 feet Hi- quality white board for writing & Projection application	1		

4	Projector	Benq				1		

Projection System	DLP	
Native Resolution	XGA(1024X768)	
Brightness	3000AL	
Contrast Ratio	13000:1	
Display Color	1.07 Billion Colors	
Lens	F=2.6 f=6.9mm	
Aspect Ratio	Native 4:3 (5 aspect ratio selectable)	
Throw Ratio	0.61	
Clear Image Size / Maximum Image Size	60"~120" / 300"	
Zoom Ratio	Fixed	
Lamp Type	190W	
Lamp Mode (Normal/Economic/SmartEco/LampSave)	4500/6000/6500/10000 hours	
Keystone Adjustment	1D, Vertical +/- 30 degrees	
Projection Offset	130% ±5%	
Resolution Support	VGA(640 x 480) to UXGA(1600 x 1200)	
Horizontal Frequency	15~102KHz	
Vertical Scan Rate	23~120Hz	
Compatibility	HDTV Compatibility (Please refer to User's Manual for detailed support timing.)	480i, 480p, 576i, 576p, 720p, 1080i, 1080p

Interface	Computer in (D-sub 15pin)	x 2(Share with component)
	Monitor out (D-sub 15pin)	x 1
	Composite Video in (RCA)	NA
	S-Video in (Mini DIN 4pin)	NA
	HDMI	NA
	Audio in (Mini Jack)	NA
	Audio out (Mini Jack)	NA
	Audio L/R in (RCA)	NA
	Speaker	NA
	USB (Type Mini B)	x1 (Download & page/down)
	RS232 (DB-9pin)	x 1
	LAN (RJ45)	NA
Dimensions	Dimensions(W x H x D)	287.3 x 114.4 x 232.6mm
	Weight	2.5kg(5.5lbs)
Power	Power Supply	AC100 to 240 V, 50 to 60 Hz
	Power Consumption	270W(typical), Standby<0.5W
Audible Noise	32/28 dBA (Normal/Economic mode)	
On-Screen Display Languages	Arabic/Bulgarian/ Croatian/ Czech/ Danish/ Dutch/ English/ Finnish/ French/ German/ Greek/ Hindi/ Hungarian/ Italian/ Indonesian/ Japanese/ Korean/ Norwegian/ Polish/ Portuguese/ Romanian/ Russian/ Simplified Chinese/Spanish/ Swedish/ Turkish/ Thai/ Traditional Chinese (28 Languages)	
Picture Modes	Dynamic/Presentation/sRGB/Cinema/(3D)/User 1/User 2	

Accessories	Standard	Optional	
	Lens Cover	PointWrite	PW02
	Remote Control w/ Battery	FingerTouch	PT01
	Power Cord (by region)	Spare Lamp Kit	5J.J9A05.001
	User Manual CD	Ceiling Mount	CM00G3
	Quick Start Guide	Wall Mount	WM06G3
	Warranty Card (by region)	Carry bag	5J.J3T09.001
	VGA(D-sub 15pin) Cable		

5	Ceiling Mount Kit for Projector	Smart Vission	Accessories		1		
6	Visual Presenter	Cybernetyx	• Capture — Size A4 • Resolution — 1600 x 1200 • Sensor — CMOS 2.0 mega pixel • Picture Format — JPG / TIF / PDF / BMP / TGA / PCX / PNG / RAS • Doc Format — PDF / WORD / TXT • Video Format — AVI / WMV • Sensor Element — CMOS • Interface Type — USB2.0 • Light Source — Natural+ LED Supplement light • Accessories — Document camera, CD-ROM, USB-cable, Users Manual • USB Cable length — 2.0 Meters • Power supply — USB 2.0 • Max. Shooting Area — A4		1		
7	Speaker	Fenda Audio			1		
8	Multi Point Bridge License	Life Size	• One-on-one and group calls • Instant and scheduled meetings • Unlimited meetings • Unlimited audio • Unlimited guest calling • Directory-based calling • Screen sharing • One-on-one chat • Group chat in a meeting room • Mobile apps • Presence status		1		
9	Wireless Mic	Ahuja	- Sensitivity: -58 dBV/µBar, -38 dBV/Pa +/-4dB - Frequency response: - Headset: 20 Hz − 20,000 Hz - Microphone: 100 Hz − 16,000 Hz - 1.8-metre (6-foot) shielded cord - 3.5 mm colour-coded plugs		1		

10	Keyboard	Circle	Processor		Intel Pentium processor N3700 (2.40 GHz, Quad Core 6W TDP	1		
			Graphics		Intel HD Graphics	1		
					One HDMI 1.4b port supporting an ultra-high definition 4K 30 Hz display			
					One VGA port			
			System Memory		4 GB RAM			
			Storage		500 GB HDD			
	LED Monitor		Peripheral Connectivity		Integrated Gigabit LAN			
					Four super Hi-speed USB 3.0 ports (two back panel ports and two fron ports including one charging port)			
					Two additional Hi-speed USB 2.0 ports via internal header			
11	Audio	AOC			Intel Wireless-AC 3165 Dual Band Wireless 801.11ac, 1X1, upto 867 Mbps	1		
					Dual Mode Bluetooth *4.0			
			Audio		Intel HD audio via HDMI 1.4b supporting 8 channel digital audio (7.1 surround sound)			
	Mouse				Intel HD audio (headset/ microphone)			
					TOSLINK optical audio			
			Front panel Header		Reset, HDD LED, Power LEDs, Power on/ off			
			Mechanical Chasis Size		4.53 ''X4.37''X2.03			
					115mm X 111mm X 51.6 mm			
			Monitor Size		15"			

12	USB Dual Charger	ADNet	Ports	1		
13	PI / Camera	Logi tech	- HD video calling (1280 x 720 pixels) with recommended system - Video capture: up to 1280 x 720 pixels - Photos: up to 5.0 megapixels (software enhanced) - Built-in mic with Logitech RightSound™ technology - Hi-Speed USB 2.0 certified (recommended) - Universal clip fits laptops, LCD or CRT monitors - Magix™ photo and video editing	1		
14	Power & VGA Cables	Smart Vission	Accessories	2		
15	Cabinet	Smart Vision Cybernetyx	CRCA Steel Sheet	1		
16	Green Board	Smart Vission	5 feet x 4 feet Hi- quality green board for writing	1		
17	UPS	Circle	**CAPACITY** VA/W 600VA/360W **INPUT** Voltage 230VAC Voltage Range 140-300VAC Frequency >40Hz (Auto Sensing) **OUTPUT** Voltage 230VAC Voltage Regulation (Batt. Mode) +/-10% Frequency 50Hz Frequency Regulation (Batt. Mode) +/-1 Hz Output Waveform Modified Sinewave **BATTERY** Battery Type 12V7Ah x 1	1		

We have read the specifications document and we certify that installation was done satisfactorily and technically verified as per specifications mentioned in the document
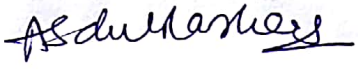

Technical Expert   *IQAC Coordinator (Nodal Officer)*   *Principal*

Government Degree College,
NARAYANAPURAM, W.G.Dt
Certificate

This is to certify that the Virtual Classroom Equipment, supplied by M/s Uneecops Technologies Limited, authorized by TCIL, have been entered in the Stock Register Vide page No. :1-6 and it is in good condition.

Signature of the Technical Expert	Signature of the IQAC Coordinator	Signature of Principal
B.V.S.	Asdullashes	B.v.J. (FAC)

PRINCIPAL (FAC)
S.A.S.Govt. Degree College
NARAYANAPURAM-534407
West Godavari, Andhra Pradesh