

Computer Hardware & Networking



Images given are for representation only and the final equipment can change according to its specifications

1. Study of Multimedia Computer

System details

- ❖ CPU with fan : Intel processor (Minimum: Core i3)
- ❖ Mother board : With Intel chipset
- ❖ Memory (RAM) : Minimum 4 GB DDR 3 RAM
- ❖ Display adaptor card : Built in motherboard
- ❖ Hard disk : Minimum 1 TB (SATA)
- ❖ Monitor : Minimum 20" TFT colour
- ❖ VGAKeyboard : Multimedia keyboard
- ❖ Mouse : Scroll mouse (optical)
- ❖ SMPS : 450 watts
- ❖ DVD R/W drive (SATA) : Included
- ❖ Sound card : Built in motherboard
- ❖ Speakers & MIC : Stereo speakers
- ❖ Video camera : USB camera (B)
- ❖ Training Kit: Training platform with test points and fault creating facilities in various sections of mother board (sound ports + com port + LPT (parallel port) + USB ports + VGA port+Others).
- ❖ Training solution includes product tutorial with interactive multimedia contents, experiments, installation and troubleshooting manuals.
- ❖ Training Kit Dimensions (mm) : W 410 x D 470 x H 120
- ❖ Power Supply : 230 V AC, 50Hz
- ❖ Weight : 10 Kg (approximately)
- ❖ Operating conditions : 0-40° C, 85% RH
- ❖ Additional Accessories as needed for the kit
- ❖ Training Material: 2 Hardcopies + Softcopy (in Pendrive)

2. Wireless Local Area Network (LAN)

Hardware

- ❖ PC to PC using RJ-45 Connector Star topology using RJ45 Connector Bus topology by using end terminator Ring topology using DB9 Connector Data transmission speed: 10/100 Mbps 4Nodes

Software

- ❖ Star, Bus & Ring selection Protocols: CSMA/CD, CSMA/CA, Stop N Wait, Go back to N, Selective repeat, Sliding Window, Token Bus, Token Ring Packet size: 128, 256, 512, 1024, 2048, 4096, 8192, 16384 Inter Packet delay: 1000 – 5000 ms Error generation: Acknowledgment lost, bad packet, auto error generation Complete analysis of Network & Protocols

Network & protocol analysis:

- ❖ Indication of packet serial number, file name, file size, file number, receiver name, receiver IP address, total packets, packet length, time out, protocol, topology, receiver, MAC address, port number, file send start time, file sent completion time, transmission time data rate(Mbps),percentage error and other applicable parameters
- ❖ Learning Material: In Pendrive (Theory, procedure, reference results etc)
- ❖ Kit Dimensions (mm): W 326 x D 252 x H 52
- ❖ Power Supply: 100V - 240V AC, 50/60Hz
- ❖ Weight :2 Kg (Max)
- ❖ Operating Conditions : 0-40°C, 80% RH

Included Accessories:

- ❖ Rj45 – RJ45 Connector Cable- 5nos.
- ❖ USB dongles- 5nos.
- ❖ DB9 connector cable-5nos.
- ❖ END Terminators-5nos.
- ❖ Patch cords 16" (2mm)-10nos.
- ❖ TechBook Power Supply-2no.
- ❖ Mains cord-2no

3. Digital Storage Oscilloscope

Bandwidth: 50 Mhz

Channels: 4

Sampling Rate: 1 GS/S

4. Digital Multimeter

Bench top, 4 ½ digit

Suitable for above kit.

5. Ethernet Port

8 Port

Managed Layer 2 & 3 - 1 No. each

6. Switch With POE Ports-2nos**7. Adapters POE-2 Nos.****8. Network Camera Suitable in above kit-2 No.****9. Antivirus License Software for 2 Year-2 Nos.****10. Fiber Optic Cable With convertor, Media Converter-2 Nos.**

AC Supply : MCB with AC supply switches for safety purpose Horizontally aligned and sufficient legroom.

Workstation: Having wheels with locking mechanism at legs. It will provide with power indicator & ON/OFF control and circuit breaker of rating 3 Amp with ON/OFF control and along with over load protection.

11. LAN Tester Suitable in above kit-2 No.**12. Crippling Tool Suitable in above kit-2 No.**