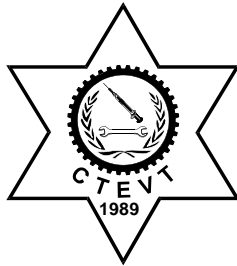


MINIMUM REQUIREMENTS

FOR

DIPLOMA IN COMPUTER ENGINEERING

PROGRAMME



Council for Technical Education and Vocational Training

Polytechnic Division

Sanothimi, Bhaktapur

NEPAL

Second Revision 2076

k|Fljlws lzIff tyf Jofj;flos tfnLd kl/ifb\ lgodfjnL 2051 sf]
lgod 17, 18, 19 / 24 df Joj:yf eP cg";f/ lghL :t/df ;+rflnt
l*Knf]df Og sDKo'^/ O{lGhlgol/é sfo{qmd ;+rfng ug]{ ;+:yfx?n]
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kmf]g g+=, O{d]n, j]a;fO{^_ .
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- egf{ Ifdtf ;DaGwdf .
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3= ljBfyL{ egf{ ;DjGwL zt{ / k|lqmf (Criteria / Procedure)

3=1 CTEVT ;+u ;DjGwg k|fKt ug]{ ;+:yfx?n] CTEVT åf/f lgwf{1/t u/]sf] zt{ / k|lqmf? ckgfpg" kg]{% .

3=2 ;a} k/LIffyL{x? -cfj]bsx?_ k|j]z k/LIffdf ;lDdnt x"q" kg]{ % . cfj]bssf] Go'gtd z]lIifs of]Uotf tf]lsP cg";f/ x"q"]% .

3=3 k|j]z k/LIffdf ;lDdnt x"q] dWo]x?jf^ of]Uotfqmdfg";f/ egf{ ug"{ kg]{% .

3=4 CTEVT n] lgwf{/f u/]sf] eGbf leGb} ;d'x cflbsf] nflu sf]^ /fVg kfOg] %}g .

3=5 %fqj[lQ sf]^f tyf egf{ ;DaGwL cGo k|lqmf k|f=lz= tyf Jof=tf= kl/ifb\, kl/Iff lgoGq)f sfof{nosf] egf{ lgb]{lzsfcg";f/ ug"{kg]{% .

4= kf&\oqmd

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4=2 s"q} klq sfo{qmdsf] gfd ;dfg zAbx? /flv kl/jt{g ug{ kfOg] %}g .

5= cfly{s klfM

6=1 ;DaGwg k|fKt ug{ rfxg] z]lIifs ;+:yf cfly{s ?kdf ;jn x"q" kg]{% .

6= ejg tyf k'jf{wf/x?

sfo{s|d ;+rfng ubf{ Ps ;d'xdf j(Ldf 48 hgf k|lzIffyL{x? /fvL ;}\$flGts sIff ;+rfng ug"{ kg]{% . oxft pNn]lvt k'jf{wf/x?sf] ;'rL Ps ;d'x -48 hgf k|lzIffyL[_ sf] nflu cfjZos kg]{% .

6=1 ejg

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6=2 sIff sf]&f

M k|lt ljBfyL{ 0=75 ju{ ld^/sf] b/n] 3 jif]{ sfo{qmdsf] nflu -k|yd, låtLo / t[tLo jif{ 3 j^f sIff sf]&f x"q" kg]{% . sIff sf]&fdf k|lzIifs / ljBfyL{sf] nflu cfjZos ^]jn, *}S; tyf s"rL{sf] Joj:yf x"q" kg]{% .

6=3 k|of]uzfnf÷js{;k

M ;fdfGo lj!fgsf] nflu cfjZos k|of]uzfnfx? Physics, Chemistry, Computer, Drawing, Welding and Metal, Electrical Workshop Pp^f eGbf a(L sfo{qmd ;+rfng ePdf ;a} sfo{qmdsf] nflu ;+o"Qm x"q"]% . Od]n OG^/g]^sf] ;"ljwf ljBfyL{x?sf] ;xh kx+"r x"q] u/L Joj:yfkg ug"{ kg]{% . t/ ;+:yfn] Py]i^ k|of]u u/fpg] ul/ pkof]u ug"{ kg]{% / ;Dk')f{ ljBfyL{x?nfO{ k|of]ufTds cEof; u/fpg] ;"lglZrt ;do tfnLsf x"q" kg]{% . cGoyf yk k|of]uzfnf÷js{;k x"q" kg]{% . Chemistry Lab df cfjZos Tap, Sink/Basin ;lxt Water Supply sf] Joj:yf x"q" kg]{% .

6=4 ljifout k|of]uzfnf M kf&\oqmdn] tf]s] cg";f/sf] %"^\^f %"^\^}
ljifout k|of]uzfnfx? x"g" kg]{% .
k|of]uzfnfsf] If]qkmn k|lt ljBfyL{ sDtLdf 1
ju{ ld^/ pknAw x"g" kg]{% . o; sfo{qmdsf nflu
k|of]uzfnfsf] Go"gtD If]qkmn tfnLsf g+= 1 df
pNn]v eP adf]lhd x"g"kg]{% .

6=5 k":tsfno sIf M sfo{qmdsf] nflu sDtLdf 40 ju{ ld^/ If]qkmnsf]
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sfo{qmd ;~rfng x"g] ePdf yk sfo{qmdsf] nflu
15 ju{ ld^/ yk If]qkmn x"g" kg]{% .
k":tsfnodf kf&\oqmddf pNn]v eP adf]lhdsf
k|To]s ljifosf] nflu ljBfyL{ ;+Vofsf] slDtdf
50 k|ltzt kf&\ok":ts x"g" kg]{% .

6=6 k|lzIfs sIf M k|lzIfsx?sf] nflu cWoog / k|lzIf)f tof/Lsf]
nflu k|lt k|lzIfs sDtLdf 2=0 ju{ ld^/ If]qkmn
pknJw x"g] sfo{ sIfx? x"g" kg]{% .

6=7 k|frfo{ sIf M ;+:yfdf k|frfo{sf] nflu %"^\^}} sfo{ sIfsf]
Joj:yf x"g" kg]{% .

6=8 k|zf;g sIf M ;+:yfdf n]vf/k|zf;g sIf %"\$} x"g" kg]{% .

6=9 ;f]wk"% sIf M ljBfyL{, cleefjs / cGo ;/f]sf/jfnfx?nfO{ ;]jf
lbg %"\$} ;f]wk"% sIf x"g" kg]{% .

6=10 zf}rfno M k|lzIfs, sd{rf/L / k|lzIfyL{sf] nflu dlxfn /
k'?if %"\$f %"\$} x"g] u/L 1M20 sf b/n]
zf}rfnosf] Joj:yf x"g" kg]{% .

6=11 vfg]kfgL M vfg]kfgLsf] nflu Water Filter/ Euro Guard or Equivalent
Water Purifier sf] Joj:yf x"g" kg]{% jf z"\$ lkgp]
kfgLsf] Joj:yf x"g" kg]{% .

6=12 rd]gf u[x M ;+:yfdf sDtLdf 20 hgfn] vfg;Sg] &fp+ (Dining
Room) ePsf] rd]gfu[x x"g" kg]{% . -20 ld^/sf]
j/Lk/L ePsf] rd]gf u[xsf] ;Demf}tf u/L k|of]u
ug{ ;lsG% .

6=13 v]ns"b ;DaGwL M elnjn, af:s]^jn, Jof*ld)^g / ^]an^]lg; dWo]
sDtLdf Pp^f Outdoor jf Indoor sf]^}sf] Joj:yf
x"g" kg]{% .

6=14 k|fylds pkrf/ sIf M ;+:yfdf Ifl)fs tyf cfktsfnLg :jf:Yo ;]jfsf
nflu rflxg] cf}ifwLx?sf] Joj:yf x"g" kg]{%
;fy} dlxfn %fqfx?sf] nflu dlxgfjf/Lsf] ;dodf
;]lg^/L Kof*sf] Joj:yf x"g" kg]{% .

6=15 O{G^/g]^ tyf jfO{kmfO{ Pl/of M ljBfyL{ tyf cfuGt"sx?sf] nflu
;'rgf k|bfg ug]{ u/L Go"gtD txsf] O{G^/g]^
tyf jfO{kmfO{ Pl/ofsf] Joj:yf x"g" kg]{% .

6=16 j]j;fO{^ M ;+:yfsf] cflwsf/Ls ;'rgf tyf hfgsf/L k|bfg
ug]{ u/L bf]xf]/f] ;Dafb ug{ ;lsG] txsf]
j]j;fO{^ Joj:yf x"g" kg]{% .

6=17 sfo{qmd ;DaGwgsf] nflu cfzokq (Letter of Intent) k|fKt u/]sf ;+:yfx?n]
k|yd / lâtLo jif{sf] nflu cfjZos ejg tyf cGo k'jf{wf/x? tof/ ug]"
kg]{% .

7= sIf f sf]&fx?M

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48 hgf tyf 24 hgfsf] nflu b]xfo cg";f/sf] Joj:yf x"g" kg]{ . k|yd
jif{sf] nflu dfq pknAw kf&\oqmd cg";f/ .

tfnLsf g+= 1

qm=; =	lj j/)f	ljBfyL{ Ifdtf - hgf_	sf]&fsf] Go'gtd If]qkmn - j=dL=_	s}lkmot
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3=	/;fog zf:q k of]uzfnf	24 hgf	24=00	
4=	sDKo'^/ Nofj	24 hgf	24=00	
5=	On]lS^«sn tyf On]S^«f]lgS; Nofj	24 hgf	24=00	

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8= k|lzIfs sd{rf/Lsf] Joj:yf M z]lIifs sfo{qmdnfO{ :t/o"Qm
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% eg] .
- hDdf sIff -;}\$flGts tyf k|of]ufTds_ #)^Fsf] Go'gtd krf; k|ltzt
sIff k')f{sflng ;]jfsf lzIfsx?âf/f g} ;+rfng ug"{kg]{% .
- Pp^f sfo{qmd ;+rfngsf] nflu cfjZos k')f{sflng tyf cf+lzs
lzIfsx?sf] egf{ ;DjlGw ;Dk')F{ sfo{ of]hgf k]z ug"{kg]{ .
- cGo s"g} ;+:yfdf sfo{/t JolQmnfO{ k')f{sflng lzIfs tyf
sd{rf/Lsf] ?kdf sfddf /fVg kfOg] %}g .
- ;+:yfdf Faculty / Staff Category Pattern b]xfo jdf]lhd x"g kg]{% . ;fy}
of]Uotf / ;+Vof kf&\oqmdf pNn]v eP adf]lhd x"g" kg]{% .

Principal

Heads of Department

Teaching Faculty

Lab Technician

9= k|To]s ;]dfi^/df c^Wofkg x" g] /hgx?M

k|To]s ;]dfi^/df s]Dtdf 15 xK_tfsf] s]ff -sDtLdf 9o c^Wofkg hg_ x" g] kg]{% h;df cttl/Qm lqmfnsfk / k/L]ff;dc
;dfj]z x" g] %}g .

9=1 Ps lbgdf 7 lkl/o*sf] sIff ;~rfng ug"{ kg]{ / k|To]s lkl/o* 50
ldg]^sf] x"g" kg]{% .

9=2 ljBfyL{ tyf lzIfs cg"kft b]xfo cg";f/ x"g"kg]{M

- ;;}\$flGts sIff 48M1
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- *«O{é 24M2
- k|of]ufTds -k|of]uzfnf, sfo{zfnf, (Field Work) sIff 12M1
- k|f]h]S^ sfo{ 6M1

10= k|zf;g tkm{M

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nfOa|]l/og, sfof{no ;xof]uL / ;"/Iff uf*{x?sf] Joj:yf x"g"kg]{% .

11= ššššsf] Joj:yfí

11=1 ljBfyL{x?sf] cg"kftdf ;a}nfO{ a:g k"Ug] u/L s";L{, a]Gr,
*]:ssf] Joj:yf x"g"kg]{% . *«O{é sIffdf *«O{é ^]jn, :^"nsf]
Joj:yf x"g"kg]{% .

11=2 sfo{zfnfsf] nflu cfjZos kg]{ k|of]uzfnf ^]a"n, s";L{, ¥ofs,
b/fhx?sf] Joj:yf x"g"kg]{% .

11=3 lzIfs tyf sd{rf/Lx?sf]nflu cfjZos ^]a"n, s";L{, ¥ofs,
b/fhx?sf] Joj:yf x"g"kg]{% .

12= sDKo'^/ g]^jls{é M

12=1 ljBfnosf sIff sf]&fdf, k|frfo{ tyf lzIfs sIf, n]vf tyf k|zf;g
;d]t If]qdf Go"gtD dfkb)* cg";f/sf] sDKo'^/ g]^js{ u/]sf]
x"g" kg]{% .

12=2 h*fg ul/Psf] g]^js{df Go'gtD ;"/Iff / uf]klgotfsf cfwf/x?sf]
Joj:yf x"g" kg]{% .

12=3 ;"/Iff tyf df]lg^l/ésf] nflu xftf leq l;l; l^le h*fg tyf
;~rfng Joj:yf x"g" kg]{% .

13= sfof{no ;fdfg M

lzIf)f tyf cGo sfof{no k|of]hgsf] nflu lgDg lnltv pks/)fx?sf]
pko"Qm Joj:yf x"g"kg]{ .

Desktop Computer System

Laser Printer

Multimedia Projector

Photocopy Machine

Biometric Attendance System

Networking System (Router, Switch, Cables)

CCTV camera and Monitoring System

15= z}lIfs ;fdfu|Lx? tyf pks/) fx? (Tools and Equipments) sf] Joj:yf

TOOLS/EQUIPMENT LIST FOR PHYSICS
(Mechanics)

S. N.	Tools/Equipment Name	Quantity (Nos.)
1.	Vernier Calipers 6"	12
2.	Vernier Calipers for Demonstration 12"	1
3.	Micrometer Screw Gauge	12
4.	Spherometer	12
5.	Steel Ball 3mm Dia.	20pc
6.	Steel Ball 2mm Dia.	20pc
7.	Brass Spheres with Hook Dia. 13mm 20mm	5
8.	Lead Spheres with Hook Dia. 10-20 mm, 13mm, 20mm	5
9.	Stop Watch	5
10.	Meter Scale (1m long wooden)	10
11.	Thread (for simple pendulum)	1roll
12.	Watch Glass (60,80,100 mm Dia)	6 pc
13.	Friction Board & incline Plane	4
14.	Friction Kit	2
15.	Slotted Iron Weights & Hanger (0.5 Kg each)	1 set
16.	Slotted Iron Weights & Hanger (100 gram each)	1 set
17.	Standard Weight Box Fractional (1mg -500 grams)	1 box
18.	Traveling Microscope	3
19.	Beakers Set (500,250,100 ml)	6
20.	Corks Borer Set (Set 5-19 mm Dia range)	1
21.	Corks (Dia 6 Bottom 10 mm Top, 10/13, 13/16)	1 set
22.	Capillary Tube (0.5 -0.75 mm & Dia)	2 each
23.	Digital Balance	2
24.	Sinker	2
25.	Measuring Cylinder	4
26.	Spcific Gravity Bottle (50 cc)	5
27.	Aneroid Barometer	2
28.	Tunning Fork (set)	2
29.	Rubber Pad	3
30.	Resonance Apparatus	3
31.	Cubes for Density Investigation	2 sets
32.	Retort Stand (315x 200mm & Rod)	8
33.	Large Triple Box for the above	8
34.	Clamp	8
35.	Apparatus Clamp (Set)	8
36.	Mercury	as needed

(Heat)

S. N.	Tools/Equipment Name	Quantity
1.	Thermometers (1/10,-10 to 110 Deg C)	15
2.	Thermometers (1/20,-10 to 50 Deg C)	10
3.	Maximum Minimum Thermometer	2
4.	Hypsometer	5
5.	Calorimeter (Cooper, 75 X 50mm)	8
6.	Outer Vessel for Calorimeter, Stirrer & Lid Set (for Cooper Calorimeter of size 75 X 50 mm)	8
7.	Calorimeter (Aluminium)	5
8.	Steam Boiler	5
9.	Hygrometer	2
10.	Hygrometer (Wet Dry Bulb)	2
11.	Hot Plate	2
12.	Test Tubes (All size 72 sets)	2
13.	Boiling Test Tubes	2
14.	Test Tube Holder	10
15.	Test Tube Stand	5
16.	Filter Paper (Size 90 & 150, box of 200)	5
17.	Wax Paraffin (kg)	1
18.	Refrigerator (Ice Cube Maker)	1

(Optics)

S. N.	Tools/Equipment Name	Quantity
1.	Plane Mirror Glass Mounted	10
2.	Cylindrical Concave Mirror Glass	8
3.	Cylindrical Concave Mirror Stainless Steel	8
4.	Concave Mirror	10
5.	Lens Double Convex	10
6.	Plano Convex Lens	10
7.	Lens Holder	5
8.	Prism	6
9.	Glass Cube	3
10.	White Screen	2
11.	Compact light Source	3
12.	Ray Optics Box	8
13.	Optical Bench 1.5 Meters	3
14.	Light Meter	1
15.	Lycopodium powder	2 pack
16.	Adjustable (in height) pin (for expt in concave mirror)	

(Magnetism)

S. N.	Tools/Equipment Name	Quantity
1.	Rectangular Section Magnets	6
2.	Horse Shoe Magnet	2
3.	Magenetizing and Demagnetizing Coil	1
4.	Vibration Magnetometer Box	2
5.	Deflection Magnetometer	3
6.	Magnetic Needle	10
7.	Plotting Compass	6
8.	Dip Circle with Needle	2

Current/Electricity

S. N.	Tools/Equipment Name	Quantity
1.	Ammeter HA, MA	3
2.	Voltmeter	3
3.	Galvanometer	2
4.	Potentiometer	4
5.	Lamp Low Voltage Lamp (LED)	8
6.	Contractor & Relay	8
7.	Plug Switch	5
8.	Connecting Wires (each)	20
9.	Crocodile clip	20
10.	Rheostat	5
11.	Resistance Coil	2
12.	Low DC Voltage Power Supply	5
13.	Battery Charger	2
14.	Inductor & Capacitor	1
15.	Different types of wire	1

(Equipment list for Chemistry)

S. N.	Tools/Equipment Name	Quantity
1.	Beaker 100 ml, 250 ml, 500 ml Set	48
2.	Glass Funnel 25mm, 75 mm, 95 mm Set	48
3.	Porcelain Basin 75 mm Dia.	48
4.	Tripod Stand Triangular (155 X 120 mm)	48
5.	Wire Gauge 140 X 140 mm	100
6.	Water Bath (12 holes) 420 mm	2
7.	Fuel Stand (Wood 450 mm)	48
8.	Test Tube Stand Plastic 250 mm	24
9.	Test Tubes 20 ml	500
10.	Hot Box Oven Size 1 (0- 500 Deg C)	2
11.	Glass rod 4 mm Dia	10 kg
12.	Test Tube 10 ml	500
13.	Conical, Round Flask 250 ml	30
14.	Glass Retort 250 ml	50
15.	Watch Glass 70 mm Dia	50
16.	Burner (gas) 130 mm	25
17.	Water Trough 230 mm Dia	25
18.	Iron Stand with Clamp 600 mm	25
19.	Pipette 10 ml	20
20.	Pipette 20 ml	50
21.	Burette 50 ml	50
22.	Volumetric Flask 250 ml	25
23.	Volumetric Flask 100 ml	105
24.	Volumetric Flask 500 ml	7
25.	Volumetric Flask 1000 ml	4
26.	Weighing Table with cap 10 ml	25
27.	Measuring Cylinder 10 ml	50
28.	Measuring Cylinder 20 ml	30
29.	Measuring Cylinder 100 ml	10
30.	Measuring Cylinder 500 ml	5
31.	Measuring Cylinder 1000 ml	5
32.	Measuring Cylinder 5000 ml	2
33.	Eudiometer Tube 50 ml	50
34.	Watch Glass 20 mm Dia	50
35.	Reagent Bottle (glass) 250 ml	100
36.	Reagent Bottle (glass) 500 ml	50
37.	Reagent Bottle (glass) 1000 ml	50
38.	Small Reagent Bottle (Plastic) 100 ml	100
39.	Dessicator 200 mm Dia	2
40.	Graduated Pipette 10 ml	25
41.	Barometer (General Lab)	1
42.	Kipp's Apparatus (Borosil)	1
43.	Distillation Unit	1
44.	Digital Balance (range 0.001 gm) Max 2	2

S. N.	Tools/Equipment Name	Quantity
45.	Digital Balance (range 0.0001 gm) Max 1	2
46.	Gas Cylinder (L.P.G. for Practical) 14	5
47.	Gas Regulator 300 mm w/c	5
48.	Gas Pipe 10 mm (meters)	3
49.	Plastic Wash Bottles	48
50.	Nicklechromed Tounge	48
51.	Small Traingular File	48
52.	Woulf's Bottle	24
53.	Thermometer 100 Deg. C	10
54.	Wire gauge	25
55.	Cork Borers different sizes	6
56.	Gas jars	24
57.	Thermometer 300 Deg. C	2
58.	Washing Brush 240 mm	25
59.	Circular Filter Paper 110 mm Dia	50
60.	Asbestos Sheet 150 X 150 mm	25
61.	Stainles Sheet Spatula 145 mm	25
62.	Glass Tube 7 mm Dia	50
63.	Thistle funnel (for gas pre) set	25
64.	Short stem funnel (for eg. wt) set	25
65.	Glass tubes, 5mm, 6mm, 8 mm Dia	50 each
66.	Rubber Groves	24 pcs
67.	Test tube holder	50 pcs
68.	Lead acetate	500gms
69.	Tall Jar	8 pcs
70.	Cork pressing instruments	1 set

Electrical and Electronics

S.N.	Equipment Name	Quantity (No)
1.	Voltmeter AC (0-220V)	12
2.	Voltmeter AC (0-220V)	12
3.	Ammeter AC (0-1, 0-10A)	12
4.	Ammeter DC (0-500 mA, 0-100 mA, 0-1 mA)	12
5.	Multimeter (Digital)	12
6.	Multimeter (Analog)	12
7.	Power supply (0-30V) 2A	12
8.	Auto transformer (0-250) 500 VA	12
9.	AC power supply (0-50V) 1A	12

Digital Electronics Lab

S.N.	Equipment Name	Quantity (No)
1.	Discrete components:	
	a. Switching diodes (1N4148)	6 pcs
	b. Transistors (BC148 or equivalent)	6 pcs
	c. Resistors (1k Ohm)	6 pcs
	d. DC power supply (5v)	6 pcs
	e. Switches	6 pcs
	f. Light emitting Diodes	6 pcs
2.	Digital electronics kit each containing following devices	
	a. 7408 (4X2 input AND gate)	1 pcs
	b. 7432 (4x2 input Or Gate)	1 pcs
	c. 7404 (4X2 inverter)	1 pcs
	d. 7402 (4x2 input NOR gate)	1 pcs
	e. 7400 (4x2 input NAND gate)	2 pcs
	f. 7486 (4x2 input XOR gate)	1 pcs
	g. 7410 (3x3 input XoR gate)	1 pcs
	h. 7411 (3x3 input NAND gate)	1 pcs
	i. 7427 (3x3 input NOR gate)	1 pcs
	j. 7476 (2XJK flip flop)	2 pcs
	k. 7474 (2XD flip flop)	1 pcs
	L. 555 (1X timer)	1 pcs
	M. 556 (2X timer)	1 pcs
10.	Oscilloscope (0-20) MhZ Dual	6
11.	Transistor test (FET, BJT)	6
12.	Function Generator	6

Computer Laboratory

S. N.	Description (Detailed Technical Specification)	Quantity
1.	Compatible Personal Computer or Laptop with E-mail/Internet Facilities	24 set
2.	Computer Network in Each computer or Wireless connection	1 set
3.	Operating System (Latest version of Window or Linux) for 24 computers	1 set
4.	External Storage Device (External Hard disk or equivalents)	1 set
5.	Office Package including word processor, spreadsheet, presentation for 24 computers	1 set
6.	Antivirus/anti-Spyware software for 24 computers	1 set
7.	Computer Cable (CAT 6, Optical Fiber)	100 meter
8.	Multimeter	1 set
9.	Power cord/ Extension cord	6 set

10.	Video Graphics Array (VGA) cable	1 set
11.	HDMI cable	2 set
12.	Switch and Router	2 set
13.	RJ, BNC	1 packet
14.	Media Convertor,	3
15.	Arduino/Raspberry PI tools Kit Set	1 set

Microprocessor and Assembly Language

S.N.	Equipment Name	Quantity (No)
1.	Microprocessor trainer kit based on 8085	6
2.	8085 Simulator (Software)	

Drawing

S.N.	Equipment Name	Quantity (No)
1.	Drawing board with table	24
2.	Drawing pen set	4
3.	Scriber	1

Maintenance Lab

S.N.	Equipment Name	Quantity (No)
1.	Blower	6
2.	Whole computer set for hardware demonstration	6
3.	Soldering Kit	6
4.	Pliers set	6
5.	Safety goggles	6
6.	Screw driver tool kit set	6
7.	Line tester	6
8.	Crimping Tool set	6
9.	Bootable CD/DVD/Pen drive	6

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