Status of Department labs
Session 2023-24

B.Tech(CSE, AIML, AIDS) 1st Year (1st and 2nd Sem) Labs

Practical/Viva Voce						
Group	**Paper Code**	**Paper**	**L**	**P**	**Credits**	**Status Of Lab**
BS	BS-151, BS-152	Physics-I Lab and Physics Lab-II	-	2	1	Working
BS	BS-155	: Applied Chemistry	-	2	1	Working
ES	ES-157	Engineering Graphics-I	-	4	2	Working
ES	ES-159	Electrical Science Lab	-	2	1	Working
BS	BS-161	Environmental Studies Lab				Working
ES	ES-158	Engineering Graphics-II	-	2	1	Working
ES	ES-164	Workshop Practice		4	2	Working

3rd Semester Labs B.Tech(CSE)

Group	**Paper Code**	**Paper**	**L**	**P**	**Credits**	**Status Of Lab**
PC	ECC-253	Digital Logic and Computer Design Lab		2	1	Working

B.Tech (AIML, AIDS) 2nd Year

Paper Code(s): AIML-205	**L**	**P**	**C**	**Status Of Lab**
Paper: Digital Logic Design Lab	**-**	**2**	**1**	Working

4th Semester Labs B.Tech(CSE)

Group	Paper Code	Paper	L	P	Credits	Status Of Lab
PC	ECC-254	Circuits and Systems Lab		2	1	Working

5th Semester Labs B.Tech(AIML/AIDS)

Group	Paper Code	Paper	L	P	Credits	Status Of Lab
PC	AIML/AIDS-357	IoT Lab		2	1	Working

B.Ed Labs Status

Group	Paper Code	Paper	Status Of Lab
1	1	Art and Craft Lab	Working
1	2	Resource Centre Lab	Working
1	3	Psychology Lab	Working
1	4	Music Lab	Working
1	5	Science and Mathematics Resource Centre	Working
1	6	ICT Lab	Working

Experiments

B.Tech(CSE, AIML, AIDS) 1st Year Labs

PaperCode: BS-151	Paper: Applied Physics - I Lab.	L	P	C
		-	2	1

Marking Scheme:
1. Teachers Continuous Evaluation: 40 marks
2. Term end Theory Examinations: 60 marks

Instructions:
. The course objectives and course outcomes are identical to that of (Applied Physics - I) as this is the practical component of the corresponding theory paper.
The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the Head of Department / Institution in which the paper is being offered from the list of practicals below. Atleast 8 experiments must be performed by the students

1. To determine the wavelength of sodium light by Newton's Rings.
2. To determine the wavelength of sodium light by Fresnel's biprism.
3. To determine the wavelength of sodium light using diffraction grating.
4. To determine the refractive index of a prism using spectrometer.
5. To determine the dispersive power of prism using spectrometer and mercury source.
6. To determine the specific rotation of cane sugar solution with the help of half shade polarimeter.
7. To find the wavelength of He-Ne laser using transmission diffraction grating. 8. To determine the numeral aperture (NA) of an optical fibre.
9. To plot a graph between the distance of the knife-edge from the center of the gravity and the time period of bar pendulum. From the graph, find (a) The acceleration due to gravity (b) The radius of gyration and the moment of inertia of the bar about an axis.
10. To determine the velocity of ultrasound waves using an ultrasonic spectrometer in a given liquid (Kerosene Oil).
11. To verify inverse square law.
12. To determine Planck's constant.

PaperCode: BS-155 / BS-156	Paper: Applied Chemistry Lab.	L	P	C

		-	2	1

Marking Scheme:
1. Teachers Continuous Evaluation: 40 marks
2. Term end Theory Examinations: 60 marks

Instructions:
. The course objectives and course outcomes are identical to that of "Applied Chemistry" as this is the practical component of the corresponding theory paper.
The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the office of the Head of Department / Institiution in which the paper is being offered from the list of practicals below. Atleast 8 experiments must be performed by the students

1. Determination of alkalinity of water sample.
2. Determination of hardness of water sample by EDTA method.
3. Determine the percentage composition of sodium hydroxide in the given mixture of sodium hydroxide and sodium chloride.
4. Determine the amount of oxalic acid and Sulphuric acid in one litre of solution, given standard sodium hydroxide and Potassium Permanganate.
5. Determine the amount of copper in the copper ore solution, provided hypo-solution (Iodometric Titration).
6. Determine the amount of chloride ions present in water using silver nitrate (Mohr's Precipitation Method).
7. Determine the strength of MgSO4 solution by Complexometric titration.
8. Determine the surface tension of a liquid using drop number method.
9. Determine the viscosity of a given liquid (density to be determined).
10. Determine the cell constant of conductivity cell and titration of strong acid/strong base conductometrically.
11. To determine (a) λ max of the solution of KMnO4. (b) Verify Beer's law and find out the concentration of unknown solution by spectrophotometer.
12. Determination of the concentration of iron in water sample by using spectrophotometer.
13. Determination of the concentration of Iron (III) by complexometric titration. 14. Proximate analysis of coal.
15. Determination of eutectic point and congruent melting point for a two component system by method of cooling curve.

References:

1. *Vogel's Text Book of Quantitative Chemical Analysis* by G.H. Jefferey, J. Bassett, J. Mendham, and R.C. Denney, Logmaan Scientific & Technical, 1989
2. *Essentials of Experimental Engineering Chemistry* by S. Chawla, Dhanpat Rai & Co., 2008.
3. Experiments in Applied Chemistry by S. Ratan, S.K. KAtaria & Sons, 2003. 4. *Practical Chemistry* by O.P.Pandey, D. N. Bajpai and S. Giri, S.Chand & Co., 2005.
5. *Engineering Chemistry with Laboratory Experiments* by M. S. Kaurav, PHI Learning Pvt. Ltd., 2011.

6. *Laboratory Manual on Engineering Chemistry* by S. K. Bhasin, and Sudha Rani, Dhanpat Rai &Co., 2006.

Note:

1. At least 8 Experiments out of the list shall be performed by the students. Teachers may introduce new experiments for the class in addition to above.

PaperCode: ES-159 / ES-160	Paper: Electrical Science Lab.	L	P	C
		-	2	1

Marking Scheme:
1. Teachers Continuous Evaluation: 40 marks
2. Term end Theory Examinations: 60 marks

Instructions:
. The course objectives and course outcomes are identical to that of "Electrical Science" as this is the practical component of the corresponding theory paper.
The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the office of the Head of Department / Institiution in which the paper is being offered from the list of practicals below. Atleast 8 experiments must be performed by the students

1. To Design the circuit for a given load and selection of its various Components and instruments from the safety point of view

   OR

   To study different types of symbols and standard currently being used inelectrical engineering. 2. Study and applications of CRO for measurement of voltage, frequency and phase of signals. 3. Connection of lamp by(1)Single Switch Method.(2) Two-way Switch Method. OR
   Performance comparison of fluorescent Tube & CFL Lamp.

   3. To Verify Thevenin's & Norton's Theorem

   OR

   To Verify Superposition &Reciprocity Theorem.

   OR

   To Verify Maximum Power Transfer Theorem.

4. To Measure Power & Power Factor in a Single-Phase A.C Circuit using Three Ammeters or three Voltmeters.
5. To Measure Power & Power Factor in a Balanced Three Phase Circuit using Two Single Phase Wattmeters.

   6. To study of Resonance in a series R-L-C or Parallel R-L-C Circuits.

   7. To perform open circuit and short circuit test on 1-phase transformer.

   8. Starting, Reversing and speed control of DC shunt Motor

   9. Starting, Reversing and speed control of 3-phase Induction Motor

   10. To Study different types of Storage Batteries & its charging system.

   11. To Study different types of earthing methods including earth leakage circuit breaker (GFCI)

   Note:

   1. At least 8 Experiments out of the list shall be performed by the students. Teachers may introduce new experiments for the class in addition to above.

PaperCode: BS-161 /BS-162	Paper: Environmental Studies Lab.	L	P	C

		-	2	1

Marking Scheme:
1. Teachers Continuous Evaluation: 40 marks
2. Term end Theory Examinations: 60 marks

Instructions:
. The course objectives and course outcomes are identical to that of "Environmental Studies" as this is the practical component of the corresponding theory paper.
The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the office of the Head of Department / Institiution in which the paper is being offered from the list of practicals below. Atleast 8 experiments must be performed by the students

1. Determination of pH, conductivity and turbidity in drinking water sample. 2. Determination of pH and conductivity of soil/sludge samples.
3. Determination of moisture content of soil sample.
4. Determination of Total Dissolved Solids (TDS) of water sample.
5. Determination of dissolved oxygen (DO) in the water sample.
6. Determination of Biological oxygen demand (BOD) in the water sample.
7. Determination of Chemical oxygen demand (COD) in the water sample.
8. Determination of Residual Chlorine in the water sample.
9. Determination of ammonia in the water sample.
10. Determination of carbon dioxide in the water sample.
11. Determination of nitrate ions or sulphate ions in water using spectrophotometer. 12. Determination of the molecular weight of polystyrene sample using viscometer method. 13. Base catalyzed aldol condensation by Green Methodology.
14. Acetylation of primary amines using eco-friendly method.
15. To determine the concentration of particulate matter in the ambient air using High Volume Sampler.

Note:

1. For better understanding of various aspects of environment visits to local areas, depending upon easy access and importance may be planned to any nearby river, forest, grassland, hills and students should write a report based on their observations.
2. At least 8 Experiments out of the list shall be performed by the students. Teachers may introduce new experiments for the class in addition to above

PaperCode: BS-152	Paper: Applied Physics - II Lab.	L	P	C

		-	2	1

Marking Scheme:
1. Teachers Continuous Evaluation: 40 marks
2. Term end Theory Examinations: 60 marks

Instructions:
. The course objectives and course outcomes are identical to that of (Applied Physics - I) as this is the practical component of the corresponding theory paper.
The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the Head of Department / Institiution in which the paper is being offered from the list of practicals below. Atleast 8 experiments must be performed by the students

1. To determine the e/m ratio of an electron by J.J. Thomson method.

2. To measure the frequency of a sine-wave voltage obtained from signal generator and to obtain lissajous pattern on the CRO screen by feeding two sine wave signals from two signal generators.

3. To determine the frequency of A.C. mains by using Sonometer.
4. To determine the frequency of electrically maintained tuning fork by Melde's method.

5. Computer simulation (simple application of Monte Carlo): Brownian motion, charging & discharging of a capacitor.

6. To study the charging and discharging of a capacitor and to find out the time constant. 7. To study the Hall effect.
8. To verify Stefan's law.

9. To determine the energy band gap of a semiconductor by four probe method/or by measuring the variation of reverse saturation current with temperature.

10. To study the I-V characteristics of Zener diode.

11. To find the thermal conductivity of a poor conductor by Lee's disk method. 12. To study the thermo emf using thermocouple and resistance using Pt. Resistance thermometer.

Note: Teacher's may use the prescribed books to choose the practicals in addition to above. Total 8 practicals minimum shall be performed by the students, they may be asked to do more. Atleast 4 experiments must be from the above list.

Textbook:

1. *B.Sc. Practical Physics* by C. L. Arora, S.Chand & Co., 2020.
2. *Practical physics* by R. K. Shukla and A. Srivastava, New Age Int. (P) Ltd., 2006.

3rd Semester Labs B.Tech(CSE, AIML, AIDS)

B.Tech (CSE, AIML, AIDS) 2nd Year

Paper Code(s): ECC-253	L	P	C
Paper: Digital Logic and Computer Design Lab	-	2	1

Marking Scheme:

1. Teachers Continuous Evaluation: 40 marks

2. Term end Theory Examinations: 60 marks

Instructions:

The course objectives and course outcomes are identical to that of (Digital Logic and Computer Design) as this is the practical component of the corresponding theory paper.

The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the Head of Department / Institution in which the paper is being offered from the list of practicals below. Atleast 10 experiments must be performed by the students, they may be asked to do more. Atleast 5 experiments must be from the given list.

1. Design and implementation of adders and subtractors using logic gates.
2. Design and implementation of 4-bit binary adder/subtractor.
3. Design and implementation of multiplexer and demultiplexer.
4. Design and implementation of encoder and decoder.
5. Construction and verification of 4-bit ripple counter and Mod-10/Mod-12 ripple counter. 6. Design and implementation of 3-bit synchronous up/down counter.
7. Design and computer architecture: Design a processor with minimum number of instructions, so that it can do the basic arithmetic and logic operations.
8. Write an assembly language code in GNUsim8085 to implement data transfer instruction. 9. Write an assembly language code in GNUsim8085 to store numbers in reverse order in memory location. 10. Write an assembly language code in GNUsim8085 to implement arithmetic instruction. 11. Write an assembly language code in GNUsim8085 to add two 8 bit numbers.
12. Write an assembly language code in GNUsim8085 to find the factorial of a number. 13. Write an assembly language code in GNUsim8085 to implement logical instructions. 14. Write an assembly language code in GNUsim8085 to implement stack and branch instructions.

4th Semester Labs B.Tech(CSE, AIML, AIDS)

Group	Paper Code	Paper	L	P	Credits
PC	EEC-254	Circuits and Systems Lab		2	1

Marking Scheme:

1. Teachers Continuous Evaluation: 40 marks

2. Term end Theory Examinations: 60 marks

Instructions:

The course objectives and course outcomes are identical to that of (Circuits and Systems) as this is the practical component of the corresponding theory paper.

The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the Head of Department / Institution in which the paper is being offered from the list of practicals below. Atleast 10 experiments must be performed by the students, they may be asked to do more. Atleast 5 experiments must be from the given list.

1. Introduction to MATLAB and its basic commands.
2. Plot unit step, unit impulse, unit ramp, exponential, parabolic functions and sinusoidal signals 3. Plot the linear convolution of two sequences
4. Study the transient response of series RLC circuit for different types of waveforms on CRO and verify using MATLAB
5. Study the time response of a simulated linear system and verify the unit step and square wave response of first order and second order, type 0,1 system
6. To determine Z and Y parameters of the given two port network.
7. To determine ABCD parameters of the given two port network.
8. To verify various theorems in AC Circuits.
9. To determine Hybrid parameters of the given two port network.
10. To design Cascade Connection and determine ABCD parameters of the given two port network.
11. To design Series-Series Connection and determine Z parameters of the given two port network.
12. To design Parallel-Parallel Connection and determine Y parameters of the given two port network.
13. To design Series-Parallel Connection and determine h parameters of the given two port network.

B.Ed

Resource Centre Lab

List of Equipments Available

S.No.	Items	Status
1	Globe-3	Working
2	Island and lagoon	Working
3	Glacier	Working
4	River and bowl lake	Working
5	Cape	Working
6	Gulf	Working
7	Water fall	Working
8	Set of rocks	Working
9	Equipment for direction	Working
10	Season Indicator	Working
11	Roller Charts	Working
12	Strait	Working
13	Prigation	Working
14	Vally	Working
15	Lake	Working
16	Set of minerals	Working

Lab In-charge

Dr. Abha Gupta

Asst. Professor

Psychology Lab

S.No.	Items	Qty	Type
1	Linear Programme on Direct Indirect Speech (LPDIS)	01	Test
2	Branching Programme on active Passive Voice (BPAPV)	01	Test
3	Linear Programme on Active-Passive Voice (LPAPV)	01	Test
4	Branching Programme on Direct Indirect Speech (BPDIS)	01	Test
5	Programmed Learning Material Environmental Education (PLMEE)	01	Test
6	Teaching Aids	01	Flash Card
7	Eminent Psychologist	01	Flash Card
8	Essay Paragraph Analysis	01	Test
9	Reading Comprehension / Reading Test	01	Test
10	Diagnostic Spelling	01	Test
11	Rapid Automatic Naming	01	Test
12	Divergent Production Abilities	01	Test
13	Association Valus English CVC'S CCS'S(Hand Book)	01	N/A
14	Culture Fair Intelligence Test Scale 1,2 & 3- By Cattell	01	Test
15	Test of General Intelligence – R.K. Ojha / K.S. Misra	01	Test
16	Group Test of Intelligence –G/P Ahuja	01	Test
17	Non Verbal Intelligence Test-A.O. Imtisungba	01	Test
18	Bhatia Battery of Performance Intelligence Test-C.M. Bhatia	01	Test
19	Bells Adjustment Inventory-R.K. Ojha	01	Test

20	Study of Value Test –R.K. Ojha	01	Test
21	Moral Judgement Test-Durganand Sinha	01	Test
22	Eysenck's Personality Questionnaire-Eysenck / Thakur	01	Test
23	16 PF.Questionnaire	01	Test
24	Dimensional Personality Inventory – Mahesh Bhargava	01	Test
25	Self Concept Questionnaire-R.K. Saraswat	01	Test
26	Social Maturity Scale-Nalini Rao	01	Test
27	P.G.I. Memory Scale-D.Persad	01	Test
28	Davies Battery of Differential Abilities	01	Test
29	Teaching Aptitude Test Battery-R.P.Singh & S.N. Sharma	01	Test
30	Passi Test of Creativity-B.K.Passi	01	Test
31	Career Preference Record-Vivek Bhargava	01	Test
32	Thematic Apperception Test	01	Test
33	Sentence Completion Test L.N. Dubey	01	Test
34	Case Study Blank	01	Test
35	A Study of the Teacher's Reaction to Frustration in School-M.K. Goyal	01	Test
36	Short Term memory-B.B. Asthana	01	Test+1
37	Long Term Memory-B.B. Asthana	01	Test+1
38	Mental Fatigue Test – Vivek Bhargava	01	Test
39	Theories of Learning	01	Chart
40	Theories of Personality	01	Chart
41	Theories of Intelligence	02	Chart
42	School of Psychology.	01	Chart
43	Mirror Drawing Electrical	01	Instrument

44	Human Maze Learning (Electrical)	01	Instrument
45	Muller Lyre Illusion with Stand & Scale	01	Instrument
46	Tachistoscope (Fall Door Type)	01	Instrument
47	Memory Drum (Hand Operated)	01	Instrument
48	Card Sorting Tray(Habit Interference Board)	01	Instrument
49	Steadiness Tester	01	Instrument
50	Stop Watch (Timer) Race Electronics Digital	01	Instrument

Lab In-charge

Dr. Geeta Chaudhary

Music Lab

S.No.	Items	Qty
1	Harmonium	01
2	Guitar	01
3	Tabla	01
4	Dholak	01

Computer Lab

Items List

S. No.	Items	Qty
1	Desktop	30
2	CPU	30
3	Mouse	30

4	Key Board	30
5	UPS	03
6	Switch Rack	01

ICT Lab, August 2023

S.No.	Name of the Items	Qty in Present
1	**Psychology And Education Charts (set of 11)**	
	Audio Visual Aids	1
	Models of Teaching	1
	Typeg of Modern Indian Education	1
	History and Development of Indian Education	1
	School of Psychology	1
	School of Indian Philosophy	1
	Hindi Sahitya ka Itihas	1
	Hindi Grammar	6
	English Grammar	11
2	**Transparencies (Set of 14) (Each set of 30)**	
	Teacher in Energing Indian Society	1
	Education Psychology	1
	Development of Indian Education	1
	Educational Technology	1
	Psychological Test & Apparatus	1
	Teaching Aids	1

		Personality Assessment-TAT	1
		Personality Assessment-CAT	1
		Research Methodology (set of 10)	1
		Action Research	1
		Teaching of Social Science	1
		Teaching of Science	1
		Enviromental Education	1
		Hindi Shikshan	1
	3	**Slides**	
		Health Rules (Set of 20)	set of 20
		First Aid (Set of 20)	set of 20
		Yogasan (Set of 20)	set of 20
		Vitamin (Set of 10)	Set of 10
		Human Body (Set of 10)	Set of 10
		Child Welfare (Set of 20)	Set of 20
	4	**Educational CD's (Set of 9)**	
		Education Psychology	1
		Psychological Test & Apparatus	1
		Educational Technology	1
		Personality Assessment-TAT & CAT	1
		Teacher in Emerging Indian Society	1
		History & Development of Indian Education	1
		Teaching Aids	1
		Environmental Education	1
		Hindi Shikshan	1

	5	**Supporting Material of E.T. Lab (Books)**	
		1. Modern Educational Technology	1
		2. Infromation and Communication Technology	1
		3. Language Structure & Vocal Behaviour	1
		4. Contrastive Linguistics	1
		5. Enhancing Communicative Competence	1
		6. Hindi ka Vyawarik Vyakaran	1
		7. Hindi Angrezi ka Vyatireki Vyakaran	1
		8. Hindi Vyakaran & Nibandh	1
	6	Phonic Sound	1
	7	Language Creativity	1
	8	Reading – Writing Skills for Pre-Primary School Children	1
	9	English or Hindi Hand Writing Improvement	1
	10	My English Friend-Learn Spoken English	1
	11	T.V. (Only)	1
	12	OHP	2
	13	DVD Player	1
	14	DTH	1
	15	Remarks: Chart should be displayed on wall	

ICT Lab, August 2023

S.No.	Name of the Items	Qty in Present
1	**Psychology And Education Charts (set of 11)**	
	Audio Visual Aids	1
	Models of Teaching	1
	Typeg of Modern Indian Education	1
	History and Development of Indian Education	1
	School of Psychology	1
	School of Indian Philosophy	1
	Hindi Sahitya ka Itihas	1
	Hindi Grammar	6
	English Grammar	11
2	**Transparencies (Set of 14) (Each set of 30)**	
	Teacher in Energing Indian Society	1
	Education Psychology	1
	Development of Indian Education	1
	Educational Technology	1
	Psychological Test & Apparatus	1
	Teaching Aids	1
	Personality Assessment-TAT	1
	Personality Assessment-CAT	1
	Research Methodology (set of 10)	1
	Action Research	1
	Teaching of Social Science	1
	Teaching of Science	1
	Enviromental Education	1

	Hindi Shikshan	1
3	**Slides**	
	Health Rules (Set of 20)	set of 20
	First Aid (Set of 20)	set of 20
	Yogasan (Set of 20)	set of 20
	Vitamin (Set of 10)	Set of 10
	Human Body (Set of 10)	Set of 10
	Child Welfare (Set of 20)	Set of 20
4	**Educational CD's (Set of 9)**	
	Education Psychology	1
	Psychological Test & Apparatus	1
	Educational Technology	1
	Personality Assessment-TAT & CAT	1
	Teacher in Emerging Indian Society	1
	History & Development of Indian Education	1
	Teaching Aids	1
	Environmental Education	1
	Hindi Shikshan	1
5	**Supporting Material of E.T. Lab (Books)**	
	1. Modern Educational Technology	1
	2. Infromation and Communication Technology	1
	3. Language Structure & Vocal Behaviour	1
	4. Contrastive Linguistics	1
	5. Enhancing Communicative Competence	1
	6. Hindi ka Vyawarik Vyakaran	1
	7. Hindi Angrezi ka Vyatireki Vyakaran	1
	8. Hindi Vyakaran & Nibandh	1

6	Phonic Sound	1
7	Language Creativity	1
8	Reading – Writing Skills for Pre-Primary School Children	1
9	English or Hindi Hand Writing Improvement	1
10	My English Friend-Learn Spoken English	1
11	T.V. (Only)	1
12	OHP	2
13	DVD Player	1
14	DTH	1
15	Remarks: Chart should be displayed on wall	

Department of Mass Communication			
JIMS Engineering Management Technical Campus, Greater Noia			
(Affiliated with IP University, Delhi)			
Equipment List, Radio Lab			
Sr. No.	**Item Name**	**Model/ Serial Number**	Quantity
1	12 Channel USB Audio Mixer	Yamaha MG12XU	1
2	Condenser Microphone	Behringer C1	3
3	Dynamic Microphone	AHUJA AUD-98XLR	1
4	Mic Stand	----	3

5	Studio Monitors	M-Audio BX5 D3	2
6	External USB Sound Card	Behringer U-PHORIA UM2 2 x 2 Audio interface	1
7	Stereo Headphone Amplifier	Mackie HM-4	1
8	Studio Headphones	Sennheiser HD 206	2
9	Field Recorder	Zoom H1n Handy Recorder	1

Department of Mass Communication

JIMS Engineering Management Technical Campus, Greater Noia

(Affiliated with IP University, Delhi)

Equipment List, Media Studio

S.No	Name of the Equipment/ Software	Model No	Serial No	Quantity
1	Video Camera Canon 4K with Battery XA40	-	ID0130	1
2	Tripod	605	-	1
3	DSLR Camera Canon with Bag	200D	228072008215	1
4	Camera Lense 18-55mm	-	7422003170	1
5	DSLR Camera Canon with Bag	200D	218072035744	1
6	Camera Lense 18-55mm	-	7322064258	1
7	Camera Lense 55-250 (200D with Bag)	-	6362007519	1
8	Godox Camera Flash Light	TT520 II	-	1
9	Portable Light Prolite with Stand Umbrela	23RT Plus	-	2
10	Studio Light Baby with Stand	-	-	2
11	Studio Light Multi 20 with Stand	-	-	2
13	Acer Desktop Computer EV 196 HQL LED Backlight	EV 196 HQL	UR1470100391 40BEA09400	1
14	Canon Battery Charger	LC-E177E	2018/12 LDJB	1
15	Canon Battery Charger	LC-E177E	2018/12 LDJB	1
16	Canon Compact Power Adopter	CA-570	1588-8133	1

17	Acer Desktop Computer EV 196 HQL LED Backlight	EV 196 HQL	UR1470100391 40BEA09F00	1
18	Background with stand in 3 colour	9023	9023	1
20	UPS	LB600UNO	241811560885	1
21	UPS	LB600UNO	241811560885	1
22	Condenser Interview Mic	RS3200M	-	1
23	Teleprompter with Tripode and Software	Samwad	-	-
24	2 TB Extaranal Hardisk	WD		1
25	Pen Drive 32 GB	Simtronics 3.0		2
26	Card Reader Multi	Podera		2
27	SD Card 64 GB	Simtronics		1
28	Canon Video Camera Battery	BP-828	85076000	1
29	Canon Video Camera Battery Charger	BP-828	850440	1

Paper code: AIDS357/AIML357

Subject: Introduction to Internet of Things Lab

List of Experiments:

1. Introduction to Arduino platform and programming and Introduction to various actuators & its applications.
2. Introduction with running a blinking LED and fading LED with PWM
   A. Arduino IDE and Operators in IDE.
   B. Frequently used Functions in Arduino IDE
3. Control Structure writing programs for if else, for and while
4. Custom functions that can be created for specific Needs.
5. Reading and writing digital and analog values. Digital and analog read/write demonstration.
6. Measuring light with Lux and a photoresistor demonstration

7. Measuring temperature and humidity.
8. Upload data from a single sensor to ThingSpeak using ESP8266 (NodeMCU),
9. Upload data from multiple sensors to ThingSpeak using ESP8266 (NodeMCU).
10. Setting up logging and visualizing data on ThingSpeak.
11. Adding an LCD screen and sketch walkthrough.
12. Create an echo server with the Ethernet Shield over Arduino.
13. Making Project- on real-world Problems.