

MANDATORY DISCLOSURE

OF

JAWAHARLAL INSTITUTE OF TECHNOLOGY BORAWAN

AS PER AICTE ,NEW DELHI
(ENGINEERING COURSES)

“The information has been provided by the concerned institution and the onus of authenticity lies with the institution and not on AICTE.”

1. NAME OF THE INSTITUTION

Address including telephone, Fax, e-mail.

JAWAHARLAL INSTITUTE OF TECHNOLOGY

“Vidya Vihar”, Borawan Tehsil Kasrawad Distt. Khargone

Ph. (07285) 277710,277888 Fax (07285)277710

Email: principaljitborawan1@gmail.com ,

Home page: www.jitechno.com

2. Name and address of the Trust /Society / Trustee

Name of Trust :

JAWAHARLAL NEHRU CHARITABLE EDUCATIONAL TRUST

“Vidhya Vihar” , Borawan Tehsil Kasrawad Distt. Khargone

Ph. (07285) 277710,277888 Fax (07285)277710

Email: principal_jit@rediffmail.com ,

Details of Trust :

Sr.No	Name	Designation	Mobile Number
1	Arun Yadav	Chairman	9425087222
2	Ramesh Chandra Sharma	Member	9926600343
3	Gopal Patel	Member	9425089074
4	Mrs Damyanti Bai Yadav	Member	9826077725
5	Leeladhar Bhattad	Secretary	9425333350
6	Mrs Namrata Yadav	Member	9425087222

3. NAME & ADDRESS OF THE DIRECTOR/PRINCIPAL

Principal – Dr. Atul Upadhyay

Address: Jawaharlal Institute of Technology, “Vidya Vihar” Borawan

Tehsil: Kasrawad Distt.: Khargone

Ph.:(07285) 277888, 277710 (O)

Fax: (07285)277710

Email: principal_jit@rediffmail.com

4. Name of the Affiliating University

RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA , BHOPAL(MP)

Airport By pass road, Gandhi Nagar, Bhopal - 36

5. GOVERNANCE

Sr.No	Name	Designation	Background	Mobile Number
1	Arun Yadav	Chairman	Ex.President MPCC Ex Minister Govt.of India	9425087222
2	Ramesh Chandra Sharma	Member	Social Worker	9926600343
3	Gopal Patel	Member	Social Worker	9425089074
4	Mrs Damyanti Bai Yadav	Member	Social Worker	9826077725
5	Leeladhar Bhattad	Secretary		9425333350
6	Mrs Namrata Yadav	Member	Social Worker	9425087222

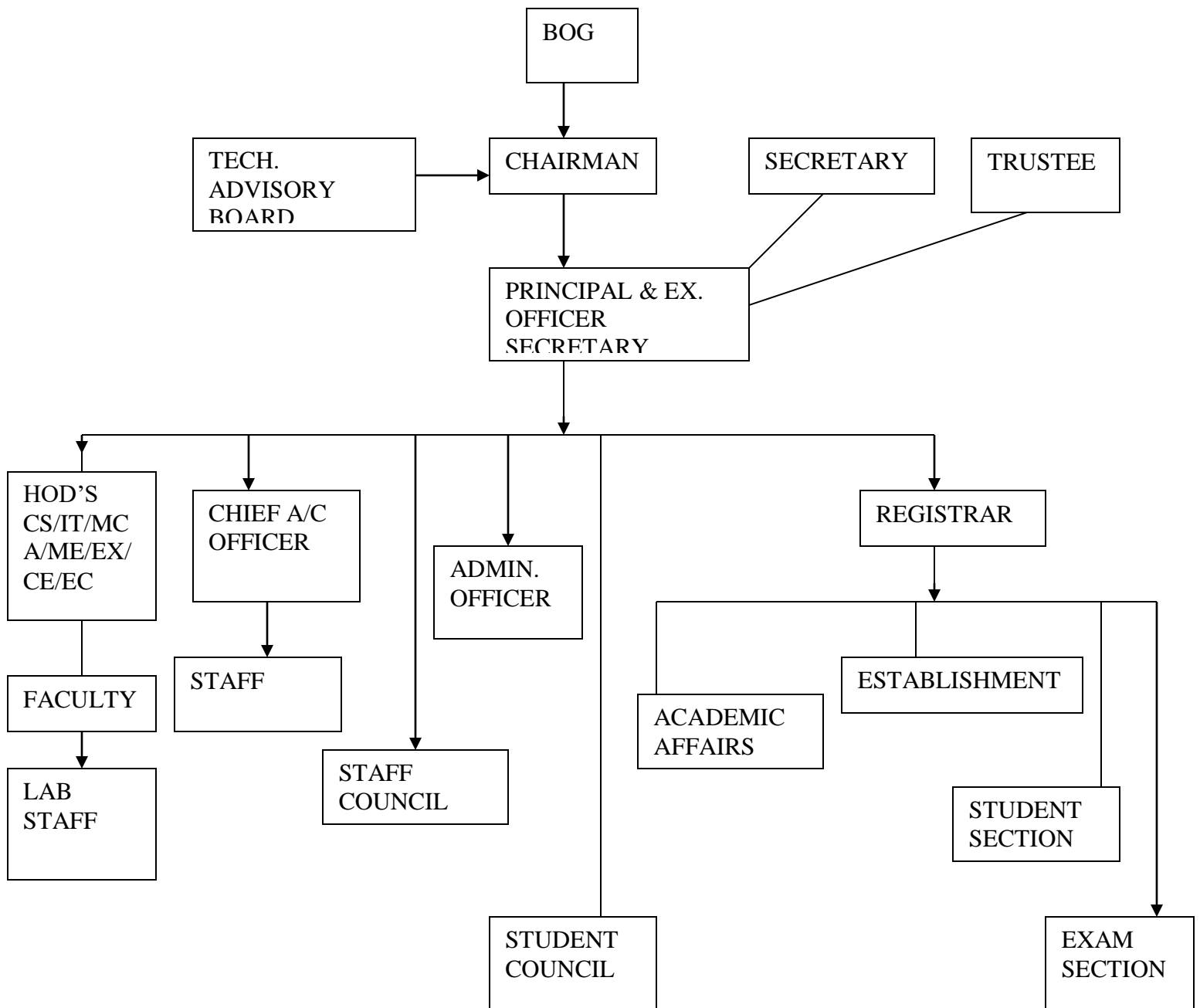
❖ **Members of Academic Advisory Body**

1. Chairman - Principal JIT, (Ex-officio)
2. Member - Dean Academic (Ex-officio)
3. Member - Dr.Piyush Trivedi
Ex.V.C., RGPV, Bhopal
4. Member - Director of Technical Education, MP Bhopal
5. Member - Dr.Priyanka Jain
Educationist
6. Member - Dr. R.S. Tare
Professor , S.G.S.I.T.S. Indore M.P.
7. Member - Dr.Sunil K.Somani
V.C., Medicaps University, Indore

❖ **Frequency of the Board Meetings and Academic Advisory Body :**

THREE MEETING / YEAR

❖ Organizational chart and processes



❖ **Nature and Extent of involvement of faculty and students in academic affairs/ improvements .**

Faculty & students are involved in various academic and administrative affairs as per the democratic and amicable way. There are Staff Council and student council for the representation and suggestions in various fields.

❖ **Mechanism/Norms & Procedure for democratic/good Governance**

All the bodies of Institute & every member perform in the interest of the institute. The organization work in hierarchy as per the organizational chart and norms of the Institute. It leads to the good governance and avoid delays. It also helps to maintain a disciplined environment.

❖ **Student Feedback on Institutional Governance/faculty performance**

Institute has a student feed back system in a confidential way regarding institutional governance and faculty performance at the end of every semester. Also through teacher guardian scheme regular performance of a faculty member is also assessed.

❖ **Grievance redressal mechanism for faculty, staff and students**

Through HOD / Councils

❖ **Establishment of Anti Ragging Committee :**

Anti Ragging Committee is formed as per AICTE guideline

❖ **Establishment of Online Grievance Redressal Mechanism**

Through online portal

❖ **Establishment of Grievance Redressal Committee in the Institution and appointment of OMBUDSMAN by the University.**

YES

❖ **Establishment of Internal Complaint Committee (ICC)**

YES as per AICTE guidelines

❖ **Establishment of Committee for SC /ST**

YES as per AICTE guidelines

❖ **Internal Quality Assurance Cell**

YES as per AICTE guidelines

6. PROGRAMMES

- **AICTE Approved Programmes**

B.E. / B.TECH.

S.N.	Branch	No of Seats	Year of Approval
1.	Computer Science & Engineering	120	1997
2.	Electronics & Communication Engineering	60	1997
3.	Electrical & Electronics Engineering	60	1997
4.	Mechanical Engineering	90	1999
5.	Information Technology	60	2001
6.	Civil Engineering	90	2004

M.E. / M.TECH.

S.N.	Branch	No of Seats	Year of Approval
1.	Software Engineering	18	2009
2.	Industrial Engineering and Mana.	18	2009
3.	Transportation Engineering	18	2012
4.	Digital Communication	18	2012
5.	Power Electronics	18	2012

POLYTECHNIC DIPLOMA

S.N.	Branch	No of Seats	Year of Approval
1.	Civil Engineering	120	2013
2.	Mechanical Engineering	60	2013
3.	Electrical and Electronics Engg.	60	2014

- **Name of Program Accredited by AICTE**

APPLIED

- **Status of Accreditation of the Courses**

Total No.of Courses : 06
No.of Courses for which applied for accreditation : 02
Status of accreditation : Preliminary

- For each Programme the following details are to be given

B.E. / B.TECH.

Name of the Programme	Seats	Course duration	Cut off marks for admission	Fees / year
Computer science & Engg.	120	4 YDC	As per AICTE and DTE MP Norms	Tuition fee Rs 50000/- Caution Money (Refundable) Rs. 1500/- Bus. Fee Rs.12000/- Hostel fees Rs 12000/- Mess 1800 per Month
Electronics & communication Engg	60	4 YDC	----- DO -----	
Mechanical Engg.	90	4 YDC	----- DO -----	
Electrical & Electronics Engg.	60	4 YDC	----- DO -----	
Information Technology	60	4 YDC	----- DO -----	
Civil Engineering	90	4 YDC	----- DO -----	

M.E. / M.TECH.

Name of the Programme	Seats	Course duration	Cut off marks for admission	Fees / Year
Software Engineering	18	2 YRS	As per AICTE and DTE MP Norms	Tuition fee Rs 60000/- Caution Money (Refundable) Rs. 1500/- University Bus. Fee Rs.12000/- Hostel fees Rs 12000/- Mess 1800 per Month
Industrial Engineering and Mana.	18	2 YRS	----- DO -----	
Transportation Engineering	18	2 YRS	----- DO -----	
Digital Communication	18	2 YRS	----- DO -----	
Power Electronics	18	2 YRS	----- DO -----	

POLYTECHNIC / DIPLOMA

Name of the Programme	Seats	Course duration	Cut off marks for admission	Fees / Year
Civil Engg.	120	3 YRS	As per AICTE and DTE MP Norms	Tuition fee Rs 32000/- Caution Money
Mechanical Engg.	60	3 YRS	----- DO -----	

Name of the Programme	Seats	Course duration	Cut off marks for admission	Fees / Year
Electrical and Electronics Engg.	60	3 YRS	----- DO -----	(Refundable) Rs. 1500/- University Bus. Fee Rs.12000/- Hostel fees Rs 12000/- Mess 1800 per Month

- **Placement Facilities**

Total 200+ Students from batch 2020 and 2021 has been placed. Many students are working in TCS, Infosys, HCL, and Wipro like MNC's from this institute. List of Companies for current year placements.

1	Byju's	10LPA	BE(All Branches)
2	Xento System Pune	3.2 LPA	CS/IT/MCA
3	Impetus Indore	4.0 LPA	CS/IT/MCA
4	Infosys	5 LPA & 3.2LPA	CS/IT
5	TCS	3.32 LPA	All Branch
6	Wipro	3.2LPA	CS/IT/MCA
	Innoeye Indore	3.2 LPA	All Branch
8	HCL	3.2 LPA	All Branch
9	Systemonex Bhopal	1.8 LPA	CS/IT/MCA
10	ISC Software Bhopal	3.01 LPA	CS/IT
11	Cubexo Software Solution	1.8 LPA	
12	Enzigma Pune	3 LPA	CS /IT/ MCA
13	Potomac Open Campus Hiring	3.75 LPA	CS /IT/ MCA
14	M/S Naggaro	3.50 LPA	CS IT
15	Ksolves Indore	3	CS/IT/MCA
16	V2Solution (RGPV)	3.15 LPA	CS /IT/ MCA
17	CIS Indore	2.57	CS/IT/MCA
18	Think Future Bhopal	3.1	CS IT MCA
19	Chapter 247 Indore	2.45	CS IT MCA
20	Qubit AI Close Intership Hiring	3.0 LPA	CS IT MCA
21	InfoBeans Open	2.5 LPA	CS IT
22	Altimatrix	5 LPA	CS EC
23	Capgemini		CS/IT
24	Rishishwar Contruction Pvt. Ltd.	2.4 LPA	CE Diploma+ B.Tech.
25	Dhoot Transmission Aurangabad	1.5 LPA	ITI+Diploma + B.Tech ME/EX
26	Kinetic Taigene Pvt. Ltd.	1.56 LPA	Mechanical
27	Bhanwariyan Infra Pvt. Ltd.	1.44 LPA	EX +Civil

28	Eicher Pitampur Open Campus Hiring	1.56 LPA	Mechanical
29	Anand Group for Diploma batch 2020	2.4 LPA	Diploma ALL
30	VE Commercial Vehicles Limited ETB Pithampur	1.8 LPA	ME/EX/ITI
31	Volan Software and Technologies	2.4 LPA	CS/IT+ AMCAT Exam Qualified
32	EXTERN LABS	2.4 LPA	CS -IT MCA
33	KrishnaWeb Technologies Pvt. Ltd	1.8-4.2 LPA	CS -IT MCA
34	WebOsmotic	1.8 - 3 LPA	CS -IT MCA
35	Zone Media	3-4.2 LPA	CS -IT MCA
36	Zluck Solutions	1.8 LPA	CS -IT MCA
37	OpsHub Inc	07-08LPA	CS -IT MCA
38	CoodeIT Solutions Pvt Ltd	2.4-4LPA	CS -IT MCA
39	Provis Technologies Pvt. Ltd	2.4-5.2 LPA	CS -IT MCA
40	Multiverse Solutions Private Limited	2.2 - 4 LPA	CS -IT MCA
41	Bridge Group Gurugram	3.5 LPA	CS/IT/MCA
42	Trivima solutions Pvt ltd	1.2	EC
43	Rudransh Associates	0.9-1.4	All Branch

7. FACULTY

❖ Branch wise faculty members:

CE	-	34
CS	-	30
EX	-	27
EC	-	16
IT	-	11
ME	-	28

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• Permanent Faculty: Student Ratio

146 : 2007 i.e. 1 : 13.74

8. PROFILE OF DIRECTOR/PRINCIPAL



1. Name :- Dr. Atul Upadhyay
2. Date of Birth :- 23/06/1969
3. Educational Qualification:-
 - (i) M.Sc. Electronics & Communication.
 - (ii) Ph.D. Solid State Physics
 - (iii) M.B.A.
4. Work Experience :- (Total 28 years)
 - (a) Teaching & Research :- Around 23 years.
 - (b) Principal/Directorship : Around 14 Yrs As Principal / Directorship of Engineering

OTHERS :

- (a) Membership of Professional Bodies
Board of Studies Member in RGPV, Bhopal
ISTE Chapter

. Area of Specializations

- (i) Solid State Physics.
- (ii) Electronics & Communication.

6. Subjects taught at Under Graduate Level

- (i) Applied Physics.
- (ii) Basic Electronics
- (iii) Material Science

Post Graduate Level:-

- (i) Nuclear Physics.
- (ii) Modern Physics.
- (iii) Semiconductors.

7. Research guidance NIL

No. of papers published in
National Level :- 07
International Level :- 03

8. Projects Carried out :-

UGC project during PhD

9. Patents :- Nil

10. Technology Transfer :- Nil

11. Research Publications:

No. of papers published in

National Level :- 07
International Level :- 03

* Duration of Employment at this Institution.

Around 24 year (At present working as Principal)

12. No. of Books published with details NIL

9. FEE

❖ Details of fee, as approved by State fee Committee, for the Institution.

Sr. No.	Details	Amount
1.	Tuition Fee (B.Tech.)	50,000.00 (Per Year)
2.	Tuition Fee (M.E./M.Tech.)	60000.00 (Per Year)
3.	Tuition Fee (MCA)	42000.00 (Per Year)
4.	Tuition Fee (Diploma)	32000.00 (Per Year)
5.	Caution Money (Refundable)	1500.00 (Only 1 yr)
6.	Hostel Fees	12000.00 (Per Year)
7.	Hostel Caution Money	1500.00 (Only 1 yr)
8.	Mess Fees	1800.00 (Per Month)
9.	Bus Fees	12000.00 (Per Year)

❖ Time schedule for payment of fee for the entire programme.

SEMESTER WISE

❖ No. of Fee waivers granted with amount and name of students.

❖ Number of scholarship offered by the institute, duration and amount

❖ Criteria for fee waivers/scholarship.

1. Waivers Tuition Fee above 85% marks in 12th and consequent year
2. The criteria for waivers in fee only real brothers & sisters or Brother / Sister are eligible to get Rs. 5,000/- concession in the college fees per year for either of the two.

❖ **Estimated cost of boarding and Lodging in Hostels.**

1. Caution Money	1500/- (One Time)
2. Room Rent	12000/- per Year
3. Mess Fees	1800/- per Month

10. ADMISSION

❖ **Number of seats sanctioned with the year of approval.**

B.E. / B.TECH.

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4.	Mechanical Engineering	90	1999
5.	Information Technology	60	2001
6.	Civil Engineering	90	2004

M.E. / M.TECH.

S.N.	Branch	No of Seats	Year of Approval
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POLYTECHNIC DIPLOMA

S.N.	Branch	No of Seats	Year of Approval
1.	Civil Engineering	120	2013
2.	Mechanical Engineering	60	2013
3.	Electrical and Electronics Engg.	60	2014

- ❖ **Number of students admitted under various categories each year in the last three years.**

B.E. / B.TECH.

S.N.	Branch	2018-19	2019-20	2020-21
1.	Computer Science & Engineering	120	120	120
2.	Electronics & Communication Engineering	08	52	13
3.	Electrical & Electronics Engineering	45	42	53
4.	Mechanical Engineering	42	33	15
5.	Information Technology	60	60	60
6.	Civil Engineering	74	90	67
TOTAL		349	397	328

M.E. / M.TECH.

S.N.	Branch	2018-19	2019-20	2020-21
1.	Software Engineering	18	18	16
2.	Industrial Engineering and Mana.	18	12	14
3.	Transportation Engineering	18	18	18
4.	Digital Communication	16	06	05
5.	Power Electronics	18	15	18
TOTAL		88	69	71

POLYTECHNIC DIPLOMA

S.N.	Branch	2018-19	2019-20	2020-21
1.	Civil Engineering	99	63	41
2.	Mechanical Engineering	60	53	34
3.	Electrical and Electronics Engg.	60	60	60
TOTAL		219	176	135

11. ADMISSION PROCEDURE

- ❖ Mention the admission test being followed, name and address of the Test Agency and its URL (website).

Test Agency : JEE MAINS (NTA)

Address: NSIC-MDBP Building First Floor, Okhala Industrial Estate
New Delhi - 110020

URL : www.jeemains.nta.nic.in , <https://dte.mponline.gov.in>

- ❖ Number of seats allotted to different Test Qualified candidates separately [AIMCET/CET (State conducted test/University tests)/Association conducted test]
AS PER GOVERNMENT NORMS

12. CRITERIA AND WEIGHTAGES FOR ADMISSION

AS PER GOVERNMENT NORMS

- ❖ Mention the minimum level of acceptance, if any.
AS PER GOVERNMENT NORMS
- ❖ Mention the cut-off levels of percentage & percentile scores of the candidates in the admission test for the last three years.
AS PER GOVERNMENT NORMS

Item No I - XI must be given in information brochure and must be hosted as fixed content in the website of the Institution.

The Website must be dynamically updated with regard to XII–XV.

13. LIST OF APPLICANTS

- ❖ List of candidates whose applications have been received along with percentile/percentage score for each of the qualifying examination in separate categories for open seats. List of candidates who have applied along with percentage and percentile score for Management quota seats.

NOT APPLICABLE

14. RESULTS OF ADMISSION UNDER MANAGEMENT SEATS/VACANT SEATS

NOT APPLICABLE

- ❖ Score of the individual candidates admitted arranged in order of merit.

NOT APPLICABLE

- ❖ List of candidates who have been offered admission.

NOT APPLICABLE

- ❖ Waiting list of the candidates in order of merit to be operative from the last date of joining of the first list candidates.

NOT APPLICABLE

- ❖ List of the candidates who joined within the date, vacancy position in each category before operation of waiting list.

NOT APPLICABLE

15. INFORMATION ON INFRASTRUCTURE AND OTHER RESOURCES AVAILABLE

- **Number of Classrooms and size of each**
47 Numbers of Average Size 75.00 Sq.meter
- **Number of Tutorial rooms and size of each**
14 Numbers of Average Size 50.00 Sq.meter
- **Number of laboratories and size of each**
50 Numbers of Laboratories having Average Size 80.16 Sq.meter
- **Number of drawing halls and size of each**
02 Numbers of Size (135 Sq.meter and 162 Sq.meter)
- **Number of Computer Centres with capacity of each**
All labs furnish with 550 MBPS Internet Facility
Total - 522 Computers with latest configuration

Central Examination Facility, Number of rooms and capacity of each.

21 Rooms and 1350 students capacity at a time with 02 students on each desk.

- **Barrier Free Built Environment for disable and elderly persons**
YES
- **Hostel Facility**
YES
02 Boys Hostel and 01 Girls Hostel Available in Campus

LIBRARY

Sl. No	Course(s)	Number of titles of the books	Number of volumes	Journals	
				National	International
01	Computer Sc. & I. T.	1460	8544	28	
02	Electronics	930	4850	20	
03	Electrical	824	4453	19	
04	Mechanical	945	3862	21	
05	Civil	932	4244	22	
06	Humanities & App. Sc.	824	3216	05	

LABORATORY AND WORKSHOP

1. CIVIL Engg. Department

List of Equipments

BASIC CIVIL ENGINEERING LAB

S.No.	Details of items with specification	Quantity
1	Dumpy level	3
2	Prismatic Compass	2
3	Prismatic Compass	2
4	Prismatic Compass	2
5	Chains	6
6	Revenue chain	1
7	Metallic Tape	1
8	Fiber glass tape	1
9	Invar Tapes	2
10	Steel Tape	1
11	Ranging Rods	10
12	Ranging Rods	12
13	Leveling Staff	4
14	Arrows	10
15	Pegs	4
16	Plane Table	1
17	Telescopic Plane Table	1
18	Plane Table with plain alidade	2
19	Plumbing Forks	2
20	Spirit Level	4
21	Vicat's Apparatus	1
22	Vicat's Apparatus	2
23	Planimeter	1
24	Theodolite	1
26	Auto Level	2
26	Cross Staff	2
27	Line Ranger	1
28	Optical Square	1
29	Offset Rod	4
30	Total Station	1
31	Tripod (Heavy duty stand)	2

ENGINEERING MECHANICS LAB

S.No.	Details of items with specification	Quantity
1	Fly Wheel Complete	1
2	Apparatus for determining coefficient of friction a) One parallel Plane b) One inclined Plane with weight box	1
3	Law of Moments Apparatus Complete	1
4	Polygon law of Forces Apparatus	1
5	Polygon of force apparatus	1
6	Parallelogram law of forces Apparatus	1
7	Parallelogram law of forces Apparatus	1
8	Bending Moment Apparatus	1
9	Screw Jack Apparatus	1
10	First System of pulley Complete	1
11	Second System of Pulley Complete	1
12	Analytical Weight box 1gm to 100 gm	1
13	Analytical Weight box 1gm to 100 gm	2
14	Slotted Weight Grou C.P. 1/c hanger	2
15	Slotted Weights Set having four weight & one hanger 5 gm	1
16	Slotted Weights Set having four weight & one hanger 10 gm	1
17	Slotted Weights Set having four weight & one hanger 20 gm	1
18	Slotted Weights Set having four weight & one hanger 50 gm	1
19	Slotted Weights Set having four weight & one hanger 100 gm	1
20	Pans (15gm to 25gm)	10
21	Pans (15gm to 25gm)	5
22	Weight (1kg)	5
23	Weight (500gm)	5
24		2

	Steel Scale	
25	Conical Weight 2 kg	1
26	Conical Weight 5 kg	1
27	Conical Weight 10kg	1
28	Simple Jib Crane	1
29	Inclined plane	1
30	Pulley Demonstration set	1
31	Compound Wheel	1
32	Winch Crab single purchase	1
33	Winch crab double purchase	1
34	Worm and worm Wheel	1
35	Deflection of beam Apparatus	1
36	Universal Force Table	1
37	Wheel and Differential axle	1

Geotechnical Engg. Lab

S.No.	Details of items with specification	Quantity
1	Shrinkage limit Set AIM-045	1
2	Compaction mould 100 mm id 127.3 mm AIM11001	1
3	Compaction mould 150mm id 127.3mm AIM- 11101	1
4	Rammer 2.6 kg x 310 mm AIM 11002	1
5	Rammer 4.9 kg x 450 mm AIM 11102	1
6	Laboratory Permeability Apparatus – AIM131	1
7	Core cutter – AIM161	2
8	Sand pouring cylinder AIM 1620	1
9	Sand pouring cylinder AIM 162 -1	1
10	Sieve Brass frame 20cm dia x 5.6 mm AIM-05301	1
11	Sieve Brass frame 20cm dia x 4.75 mm AIM-05302	1
12	Sieve Brass frame 20cm dia x 4 mm AIM-05303	1

13	Sieve Brass frame 20cm dia x 2.8 mm AIM-05305	1
14	Sieve Brass frame 20cm dia x 2.36 mm AIM-05306	1
15	Sieve Brass frame 20cm dia x 1.4 mm AIM-05309	1
16	Sieve Brass frame 20cm dia x 2 mm AIM-05307	1
17	Sieve Brass frame 20cm dia x 1 mm AIM-05311	1
18	Sieve Brass frame 20cm dia x 850 microns AIM-05312	1
19	Sieve Brass frame 20cm dia x 710 microns AIM-05313	1
20	Sieve Brass frame 20cm dia x 600 microns AIM-05314	1
21	Sieve Brass frame 20cm dia x 500 microns AIM-05315	1
22	Sieve Brass frame 20cm dia x 425 microns AIM-05316	1
23	Sieve Brass frame 20cm dia x 355 microns AIM-05317	1
24	Sieve Brass frame 20cm dia x 300 microns AIM-05318	1
25	Sieve Brass frame 20cm dia x 250 microns AIM-05319	1

26	Sieve Brass frame 20cm dia x 180 microns AIM-05321	1
27	Sieve Brass frame 20cm dia x 125 microns AIM-05323	1
28	Sieve Brass frame 20cm dia x 90 microns AIM-05325	1
29	Sieve Brass frame 20cm dia x 75 microns AIM-05326	1
30	Sieve Brass frame 20cm dia x 63 microns AIM-05327	1
31	Liquid limit device AIM041	1
32	Electronic Weighing Machine cap.20kg Readability:1 gm	1
33	Oven Size- 450 *450*450 cm	1
34	Soil Container	10
35	Triaxial Shear Test Apparatus Motorised	1

Environmental Engg. Lab.

S.No.	Details of items with specification	Quantity
1	Borosil 100 ml	6
2	Borosil 250 ml	6
3	Borosil 500 ml	6
4	Test Tube 15 X 150 mm	20
5	Test Tube Stand PVC	4
6	China Dish	3
7	Burtte Stand powder cotted with clamp	5
8	Con. Flask Borosil 250 ml	6
9	Reag. Bottle Indian 500 ml	20
10	Reag. Bottle Indian 125ml	5
11	Filter paper	1

12	Borosil 20 ml	6
13	Digital neflo Turbidity meter	1
14	Conical flask Borosil 100 ml	6
15	Burette Borosil 50 ml	6
16	COD Reflux App. Comprising of 3 RB Flask	1
17	BOD Incubetor	1
18	Thermometer	1
19	Thermometer	1

Transportation Engg. Lab.

S.No.	Details of items with specification	Quantity
1	Thickness Gauge	1
2	Penetrometer cone	1
3	Bitumen penetration kit	1
4	Laboratory CBR Test	1
5	Los Angles Abration Testing Machine	1
6	Tar viscometer App.	1
7	Bitumen Extractor Hand operated	1
8	Water Bath	1
9	Electronics Balance	1
10	Ductility Testing Machine	1

Fluid Mechanics Lab.

S.No.	Details of items with specification	Quantity
1	Flow Throw Orifice and mouth piece app.	1
2	Flow measurement by Venturimeter and orifice miter	1
3	Losses in pipe friction app.	1
4	Reynolds app.	1
5	Metacentric height of ship modal app.	1

6	Impact of jet app.	1
7	Flow measurement of by venturimeter	1

Concrete Technology Lab

S.No.	Details of items with specification	Quantity
1	Sieves GI sheet	7
2	Mixing Tray	1
3	Cube Moulds 15 X15 X 15	3
4	Cube Moulds 15 X15 X 15	6
5	Pycnometer	2
6	Cylindrical moulds 10X 20	3
7	Cube Mould 5 X 5X 5	6
8	Crushing Value App.	1
9	Le – Chatelier app.	1
	Le – Chatelier app.	1
10	Slump Test	1
11	Aggregate impact Tester With counter	1
12	Crushing value app.	1

Engineering Geology Lab

S.No.	Details of items with specification	Quantity
ROCK SAMPLE		
1	BASALT	1
2	GRIESS	1
3	SERPENTINE HARD GREEN	1
4	COAL	1
5	DITOMITE	1
6	CON GLOMERATE	1
7	PUMIC	1
8	RHYOLIFE	1
9	LIME STONE	1
10	GRANITE	1
11	AMATHYST	1
12	ASBESTOS	1

13	DOLOMITE	1
14	GRANITE WHITE	1
15	MORBLE	1
16	QUARIZITE SHIT	1
17	QUARTIZITE GREEN	1
18	SHALE GRAY	1
19	BRACCEIA	1
20	COQUINA JASPER	1
21	QUARIZITE WHITE	1
22	SAND STONE	1
23	ASBASFOS	1
MINERAL SAMPLE		
1	AZURITE	1
2	GARNET	1
3	GYPSUM	1
4	SILIMINITE	1
5	SULPHUR	1
6	KYANITE	1
7	BRYTES	1
8	BENTONITE	1
9	BERYL	1
10	BIOTITE	1
11	PYRITE	1
12	PYROLUSITE	1
13	PYROXENE	1
14	CALCITE	1
15	CHROMITE	1
16	CUPRITE	1
17	CUPRITE GREENISH	1
18	HALITE	1
19	HEMATITE	1
20	MICA	1
21	QUARTZ	1
22	ROSE QUARZ	1
23	FLUORITE	1
GEOLOGICAL CHARTS		
1	Earthquake, Tides, Volcano, Hill features contours & Map setting	4

2. Computer Science and Engg. Deptt.

List of Equipment

S.No.	Item	Qty
A	COMPUTER SYSTEMS	
1	Pentium 166 Mhz,2.1 Ghz,1.44 MB FDD,16 MB RAM with all standard accessories	6
2	Pentium 166 Mhz,2.1 Ghz,1.44 MB FDD,1.2 MB FDD,32 MB RAM, creative MM Kit	1
3	Pentium 166 Mhz,2.1 Ghz,1.44 MB FDD,16 MB RAM with all standard accessories	6
4	Brand Vintron Pentium-III,500 Mhz, 128 MB Ram,8.5 GB HDD,6x DVD,1.44 And 1.2 MB FDD	1
5	Brand Vintron Pentium-III,450 Mhz, 32 MB Ram,4.3 GB HDD,48x CD ROM,1.44 And 1.2 MB FDD with all standard accessories	10
6	Brand Vintron Pentium-III,450 Mhz, 32 MB Ram,4.3 GB HDD,48x CD ROM,1.44 And 1.2 MB FDD with all standard accessories	8
7	Server Comp. Interl Pentium-III 933 Mhz,128 MB SDRAM,20 GB HDD Seagate,1.44 & 1.2 MB FDD,CDROM 52x EIDE with all standard accessories	1
8	Node Comp. AMD DURON 650 Mhz, 128 MB SDRAM,20 GB UDMA Seagate HDD,1.44 MB FDD with all standard accessories	20
9	Intel 845 6V chipset, intel 2.5 Ghz -400 Ghz processor,40 Gb HDD,128 MB DDRAM, 1.44 MB FDD,52x CDROM with all standard accessories	27
10	Wipro Super Genius P-IV processor 7.5 GHz chipset,128 MB SDRAM,1.44 MB FDD,40 GB HDD,52x CDROM with all standard accessories	20
11	Pentium-IV 1.7 Ghz,128 MB SDRAM,1.44 FDD,40 GB HDD,52x CDROM	20
12	Pentium-III 933 Mhz,256 MB RAM,40 GB HDD, 18 GB SCSI,1.44 FDD,52x CDROM/CD Writer	1
13	Pentium-III 933 Mhz,128 MB RAM,20 GB HDD,1.44 FDD,52x CDROM	20
14	Pentium-III 933 Mhz,128 MB RAM,20 GB HDD,1.44 FDD	60
15	Pentium-III 700 Mhz,128 MB RAM,1.44 & 1.2 MB FDD,18 GB HDD,52x CD ROM	2
16	Pentium-III 700 Mhz,64 MB RAM,1.44 MB FDD,20 GB HDD,52x CD ROM	30

17	Wipro Pentium-IV 2.66 Ghz,256 MB DDRAM,1.44 FDD,80 GB HDD,52x CDROM with all standard accessories	50
S.No.	Item	Qty
18	Wipro Pentium-IV 3.06 Ghz,256 MB DDRAM,1.44 FDD,80 GB HDD,52x CDROM with all standard accessories	25
19	Cerlon 204 processor with 256 DDR without Monitor, HDD, CDROM	17
20	HP - Server ML110 Pentium IV 3.04GHz 512MB 36GB SCSI HDD with server 2003 software	1
21	Lenovo INTEL CORE i3 8 thGen. 4 GB 500GB HDD ALL IN ONE	30
22	INTEL CORE I3 4GB 1 TB HDD	30
23	INTEL CORE I3 4GB 500GB HDD	60
	TOTAL	446
B	CVT	
1	CVR 2.5 KVA	2
2	CVT	7
	TOTAL	9
C	AC	
1	Air Conditioner 2.0 Ton	2
2	Air Conditioner 1.5 Ton	4
3	Air Conditioner Kenstar 1.5 Ton*	2
D	LAN Equipments	
1	Ethernet cards	6
2	Ethernet cards	7
3	HUB 8 Port	2
4	HUB 8 Port	1
5	HUB 8 Port	1
6	Hayes Accura Modem 33.6 Kbps	1
7	Modem 56.6 Kbps EXTERNAL	2
8	Modem 56.6 Kbps EXTERNAL	3
9	HUB 24 Port	2
10	Patch Panel	1
11	Switches 16 port	8
12	N/W Tool Kit	

13	Switch 24 port	4
E	PRINTER	
1	Printer KXP 1150	1
2	Printer TVSE QX235	1
3	Printer HP Laser Jet 6L	1
4	Printer InkJet Color Modi Xerox MX 9510	1
5	Printer Wipro 1020 + 132 Columns	3
6	Printer HP Laser Jet 2100	1
7	Printer InkJet Color 840 C	1
8	Printer TVSE MSP	3
9	Printer LX 800 Wipro	1
10	Printer HP-840c	1
11	Printer HP DJ 640c	1
12	Printer HP DJ 3940	1
13	Printer Canon Lbp 2900	6
F	SCANNER	
1	Astra 1210 Scanner UMAX	1
2	Canon Ediltes 1100	4
G	PLOTTER	
1	Plotter A1 Size HP Deskjet	1
H	ZIP DRIVE	
1	Zip Drive 100 MB	1
S.No.	Item	Qty
I	UPS	
1	UPS 1 KVA	7
2	UPS 500 VA	1
3	UPS 3 KVA(with external battery)	1
4	UPS 650 VA(with internal battery)	12
5	UPS 2 KVA(with external battery)	1
6	UPS 2 KVA (OFFLINE)	3
7	UPS 2 KVA (with battery)	3
	TOTAL	28

J	STABALIZER	
1	Servo Stabalizer 5 KVA	1
2	Nucleous Voltage Stabalizer 5 KVA	4
	TOTAL	5
K	AVR	
1	AVR 5 KVA	1
2	AVR 5 KVA	14
	TOTAL	15
L	SOFTWARE	
1	MS VISUAL BASIC 5.0	1
2	MS VISUAL STUDIO 6.0	1
3	FORTRAN 77 DOS	1
4	MS-OFFICE 97	1
5	WINDOWS-ME	1
6	MACROMEDIA FLASH 5	1
7	SREELIPI 2.0	1
8	COBOL Ansi	1
9	Dr. SOLOMON'S AVTK	1
10	NORTON ANTIVIRUS 2001	1
11	RED HAT 7.1	1
12	MS-NT WORKSTATION	1
13	ORACLE 8i	1
14	VISUAL C++ 5.0	1
15	BORLAND TURBO C++	1
16	WINDOWS 98	1
17	KALAKAR FONTS	1
18	WINDOWS NT SERVER	1
19	MACROMEDIA DREAMWEAVERS	1
20	MACROMEDIA DREAMWEAVERS	1
21	Microsoft Office (Open office)	
22	Microsoft Office(LaTeX)	
23	Turbo C (GCC)	
24	Mathematica/Maple(Sage)	
25	VxWORKS RTLinux, RTAI	
26	R PROGRAMING	
27	PYTHON	

28	JUPITER	
29	HADOOP	
	TOTAL	29
M	OTHER DEVICES	
1	WEB CAMERA(LOGITECH)	

3. Electronics & Communication Engg. Department

List of Equipments

<u>S No.</u>	<u>Name of items with specifications</u>	<u>Quantity</u>
-	-	-
	<u>Digital Electronics Lab</u>	
1	Nand gate encoder E&E make	1
2	Logic gate trainer	1
3	Up down Counter	1
4	Trainer Board of 16101 line multiplier	1
5	Traineer board of RS, D, T, JK F/F	1
6	Traineer Board of 1 to 16 Line Demultiplexer	1
7	Trainer Board of Module N Counter	1
8	Four bit ripple counter trainee kit	1
9	BCD to decimal encoder & binary to octal Decoder	1
10	Logic gate trainer, AND, NAND, OR, XOR, NOR	1
11	Board for study of RS, JK & T flip flop	1
12	Trainer board for logic gates	1
13	FPGA kit complete with manual	5
14	Digital multi 3.5 digit 4999 count, D.C. voltage 320mw- 3.2, 32, 320V, 1000v 750V, Resistance 320 Ohm to 32 Mohm over range indication	1
15	Digital lab bread board 172.5, 128.5, connections 1685 DC power supply 1Hz to 1Mhz	5
	<u>Instrumentation Lab</u>	
1	Circuit board for study of LDR as optical sensor with built-in regulated power supply	1
2	pH meter 0-14 pH 0-700 mv with cell complete with electrode and manual	1
3	Two wire thermistor in op-amp circuit with r.p.s. $\pm 15/500\text{mA}$	1
4	Temp control circuit using IC-555 and thermistor with r.p.s.	1
5	Circuit board for study of solar cell as light	1

	intensity	
6	strain gauge module 5 kg four strain gauge ,bonded and fitted of stand with weights 5kgms ,4.5 digit display	1
7	transducer module with capacity pick up and digital indicator (water level indicator)	1
8	Pressure transducer 10kg /cm ² excitation 5v dc	1
9	Force transducer 25kg with digital force meter	1
10	Setup for LVDT with r.p.s. +12/500mA - 12volt/500mA	1
11	Owen's Bridge	1
12	HM 203 oscilloscope (30 MHz)	3
13	D sauty bridge	2
14	Hall effect setup 0-200 mv ,0-20mA	1
15	Digital gauss meter 0-2kg ,0-20kg	1
16	Electromagnet	1
17	Maxwell's Bridge	2
18	Scheering Bridge	2
19	Hay's Bridge	2
20	Strain gauge Kit	1
21	Bourdon pressure transducer demonstration kit	1
22	LVDT trainer kit	1
23	Analog to digital converter	1
24	3 and 1/2 digital multimeter model no 3900	5
25	Q-meter or LCR meter	1
26	Temperature measurement exp. Module thermocouple	1
27	Thermistor module	1
28	Digital to analog converter	1
29	Analog to digital converter	1
30	Digital multimeter (3.5 Digital)	2
31	Function Generator	3
32	Voltage stabilizer 2kVA single phase	1
33	Circuit board for study of wein bridge osc	1
34	Circuit board for study of analog to digital converter	1
35	Frequency convertor DC 800 sensitivity	2
36	Oscilloscope HM 605 xy made 1mV voltage sensitivity	4
37	Circuit board for study of phase detection and measurement ensuring PLL with regulated power	1

	supply	
38	Scientech 25MHz 2 channel 4 trace oscilloscope with component and continuity tester with 2 MHz function pulse genitor and 30MHz fren. Counter modal ST- 223	1
	<u>Microprocessor Lab</u>	
	-	
1	Microprocessor 8085 kit with power supply 7pin frc cable to connect kit	7
2	Interfacing A to D convertor using 8255 kit with manual	3
3	Interfacing 8253 with 8086 kit with manual	3
4	Interfacing 8279 with 8086 kit with manual	3
5	8085 microprocessor trainer kit with 101 keyboard manual	5
6	8086 microprocessor trainer kit with power supply, keyboard & manual	5
	<u>Communication Lab</u>	
1	Pulse Code Modulation board	1
2	Circuit Board for study of pulse width modulation	1
3	Circuit Board for study of pulse amplitude modulation	1
4	Time division Multiplexing	1
5	Amplitude modulation and demodulation	1
6	Ckt board for study of FM &DEMODULATION	1
7	Ckt board for study of balanced modulator(dsb)	1
8	Ckt board for study of frequency time shift keying modulator with power supply	1
9	Ckt board for study of frequency time shift keying de modulator with regulated power supply	1
10	Pulse position modulator & demodulator	1
11	Circuit Board for study of DSB-SC modulation(diode bridge type)	1
12	Circuit Board for study of pulse code de modulation	1
13	Circuit Board for study of pulse width demodulation	1

14	Circuit Board for study of pulse amplitude demodulation	1
15	Function generator 0-3 MHZ model hm5030-4	4
16	Spectrum Analyser	1
17	Digital multimeter with card	1
18	Analog signal sampling	1
19	Scientech sampling & reconstruction trainer with crystal frequency 6.4 mhz on board generator(model-st-2101)	1
20	Scientech data forming & carrier modulation transmission trainer with carrier modulation board carrier & data formats(model-st-2106)	1
21	Scientech carrier demodulation & data reformatting reciever with deciding option & carrier de modulation(model-st-2107)	1
22	Digital multimeter	1
	<u>VLSI Lab</u>	
1	Universal VLSI Trainer Proto Board	1
	Universal Base Unit(Matherborad)	1
	CPLD module (Xilinx 9572PLCC84)	1
	FPGA Modile (Xilinx Spactan 11 XC2s30 PQ 208)	1
	Programing Cable Power Supply	1
	<u>Antenna & Wave Lab</u>	
	-	
1	Digital Multi Meter 3.5 Digit 4999 Count,DC Voltage-320mv,3.2-32-320v,1000v,AC Voltage:- 3.2-320ohm-32Mohm ,Over Range Indication,Modle 702	1
2	Antenna Trainer Kit Without Antennas With RF Genrator (750mhz) Approx. Tone Genrator (1khz),Diractional Coupler (forward & Reverse Selectable), Matching Stub (Sliding type),And Antenna Rotation 0-360 Degree Resolution 1 Degree Detector Display	3
3	Antenna's Accessories Transmitting Atenna(20 Dill. Type) 19+Director+Reflector Rod=20 Current Probe ,BNC-tee, BNC-BNC Adopter-M,BNC-BNC Adopter-F,BNC-BNC-cable, Screw Driver,Detailed Instruction,Manual,Polar Graph,Currqing Case,Antenna Fabrication (list),(All one set)	1

4	BNC-Tee ,BNC-BNC Adopter,BNC-BNC Adopter-F,BNC-BNC Cable,Screw Driver,(Two sets)	2
	<u>Communication Network Lab</u>	
1	IC bread board trainer E&E, make (1004)contact Pts:1680	1
2	IC bread board trainer E&E, make contact Pts:2320	1
3	composite low pass filter E&E make type:EE-49A	1
4	Composite high pass filter E&E make type:EE-49C	1
5	Comtt. K-type high pass filter Type: EE-49B	1
6	Digital multimeter 3.5 digital-4999 count ,DC voltage-320mv,3.2-32-320,1000v,AC voltage:-3.2-320v,750v,resist 320ohm-3200ohm	2
7	"Sciencetech" Tx line demonstrator trainer variable cable 100mm(25m) impedance matching resistor 0-10ohm test generator sine wave 45khz-4khz Square wave 10khz Main cord BNC-BNC cable, BNC balance cable Nodule ST-2266	1
8	Constant K-type band pass filter Modle-8014	1
9	Constant M-type low pass filter Modle-8016	1
10	Constant M-type high pass filter Modle-8017	1
11	constant M-type band pass filter Modle-8018	1
12	Constant K-type low pass filter Modle-8012	1
	<u>Optical Communication Lab</u>	
1	Sintech Advanced fiber optic trainer(Model ST-2502)	2
2	Digital multimeter 3.5 Digit-4999 count DCvtg-320 mv,3.2-32-320V,1000V AC Volaage-3.2-320V,750V,Resist.320 ohm-32Mohm-Over range indication	1
3	PMMA Patchcord	1
4	Optical Power meter	1
	<u>Process Control Lab</u>	
1	CRO 0-30MHz,HM-203,XY Mode,1mv vertical	3

	sensitivity,Dual Trace with attenuation probes and manual	
2	Alarm ckt demonstrator fault panel for demonstration	1
3	Microprocessor based real time PID controller trainer	1
4	Linear system simulator	1
5	Relay control system	1
6	DC position controller	1
7	Potential meter error detector	1
8	Digital multimeter	3
9	PID controller PB 5% to 50%	1
	<u>Electronics Lab</u>	
1	Digital multimeter 3 1/2 digit	5
2	trainer kit of transistor feedback amplifier	1
3	Board for study of varactor diode complete with built in power supply	1
4	oscilloscope (CRO) model HM 203SL-684776,78 to 81 30MHZ	5
5	Testronics AC milivoltmeter 1mv to 300v rms in 12 ranges	3
6	Testronics DC microvolt,microampere 3 1/2 digit +/-10v to +/-100v Dc in 7ranges +/-0.1 microamp to +/-ADC in 6 ranges	2
7	FET voltmeter AC/DC	1
8	FET Multimeter	1
9	Digital Frequency counter meter	1
10	Audio oscillator (sine wave)	1
11	Regulated Power Supply 0-100mA HT 0-300v bias 0-30v, LT 0-60v	1
12	Trainer Board for transistor characteristics 0-5v, 0-200microamp,0-10v,0-20 mA	1
13	Trainer Board for IC 555	1
14	Trainer Board for diode clipper	1
15	Trainer Board for diode clamping	1
16	Circuit Board for study of gyrator	1
17	Board for study of sample and hold circuit	1
18	Voltage to Frequency converter	1
19	Frequency to voltage converter	1
20	OP-amp trainer board	1

21	Circuit board for study of transistorized differential amplifier	1
22	Circuit board for Log and antilog amplifier	1
23	First order low Pass Filter	1
24	First Order High Pass Filter	
25	circuit board for active band pass filter with regulated power supply	1
26	circuit board for study of current to voltage converter 5KE with manual and patch card	1
27	Opamp V to I converter	1
28	circuit board for active state variable universal filter with RPS +15/ 500 Ma	1
29	circuit board for shunt voltage regulator using BJT	1
30	Transistor Dc amplifier with built in regulated power supply	1
31	Transistor push pull amplifier with power supply	1
32	FET Amplifier (common source common drain) amplifier with P.S.	1
33	AF amplifier with built in regulated power supply	1
34	CKT board for series type or voltage regulator with P.S.	1
35	CKT board for transistorized hartley oscillator with P.S.	1
36	CKT board for transistorized collpits oscillator with P.S.	1
37	CKT board for RC phase shift oscillator	1
38	CKT board for transistorized wein bridge oscillator	1
39	CKT board for voltage follower using opamp	1
40	CKT board for summer/subtractor/differentiator/integrator using opamp	1
41	CKT board for transistorized schmitt trigger	1
42	CKT board for transistorized class c amplifier	1
43	FET characteristics trainer	1
44	Diode and zener diode characteristics	1
45	Regulated Power Supply using zener diode	1
46	IC- 555 trainer kit	1
47	Transistor characteristics(CE,CB,CC)CKT board	1
48	Transistor feedback amplifier kit	1
49	SCR characteristics with built in p.s.	1

50	UJT characteristics trainer	1
51	Transistor trainer kit with variable power supply	1
	<u>Microwave Lab</u>	
1	Microwave list bench with solid state klystron power supply 10-270 VDC modulation AM	2
	Klystron mount	
	Klystron freq meter	
	Isolator	
	Variable Attenuator	
	Slotted Attenuator	
	Slotted section	
	Post mount	
	Wave guide stand	
	S.S. tuner	
	Matched termination	
	tunable probe	
	VSMR meter	
	Power supply	
	Cooling Fan	
	Power Cord	
	BNC Cables	

4. Electrical & Electronics Engg. Department

LIST OF EQUIPMENTS :

Sr. No.	Name of Laboratory	Item
1	Basic Electrical Engg.	86
2	Electrical workshop	34
3	Power Electronics	30
4	Electrical Machines	120
5	Network Theory	61
6	Control Systems	16
7	Power system & high voltage	18
8	Electrical measurement	20
	Total	

Laboratory: Basic Electrical Engg.

Sr. No.	Name of Item	Qty.
1	Rheostat 1 amp., 900 Ω double type	3
2	Rheostat 1.8 amp., 220 Ω double type	1
3	Rheostat 2 amp., 180 Ω single type	3
4	Rheostat 2.6 amp., 500 Ω Four type	2
5	Rheostat 5 amp., 100 Ω Four type	3
6	Decade Resistance box 6 dial A grade	1
7	Digital voltmeter 0-500 Volt	2
8	Digital voltmeter 0-200 milliVolt	2
9	Analog voltmeter 0-15 Volt	2
10	Analog voltmeter 0-15/30 Volt	2
11	Analog voltmeter 0-10 Volt	2
12	Analog voltmeter 0-30/60 Volt	2
13	Variac 2Amp.	1
14	Variac 10Amp.	1
15	Trainer board of Kirchoff's Law	3
16	Trainer board of Thevenin's theorem	3
17	LCR Circuit	2
18	Trainer board of Logic Gates	5
19	Trainer board of superposition theorem	2
20	Trainer board of maximum power theorem	2

21	Analog Ammeter 0-10mA	2
22	Analog Ammeter 0-100mA	2
23	Analog Ammeter 0-250mA	2
24	Digital Ammeter 3A	2
25	Digital Ammeter 500mA	2
26	B-H curve apparatus	1
27	Galvanometer 30-0-30	1
28	Galvanometer 50-0-50	1
29	Function generator	1
30	Energy meter	1
31	IC Regulated power Supply 2A, 30 volt	2
32	IC Regulated power Supply 1A, 30 volt	2
33	Single Phase Transformer 3kVA	1
34	Loading Rheostat 250Volt,2.5kW	1
35	Lamp load 4kW	1
36	Extension board	5
37	Wattmeter 0-1200watt, 5-10A, 250/500 Volt	1
38	RLC series parallel resonance circuit	2
39	20Mhz CRO	1
40	3&1/2 digital multimeter	3
41	Meco digital meter	1
42	Trainer board of digital circuits	8
	Total	

Laboratory: Electrical Workshop

Sr. No.	Name of Item	Qty.
1	Pad hammer 250 gm	2
2	Pin hammer 250 gm	2
3	Pad hammer 250 gram	2
4	Pliers 6inch	2
5	Cutter	1
6	Nose plier	1
7	Plier 6inch	1
8	Plier 8 inch	1
9	Demo start	1
10	Dol start	1

11	Star/delta	1
12	Demo board for conducting insulating material	1
13	Demo board for wiring accessories	1
14	Demo board for service connection	1
15	Demo board for wiring joint	1
16	Demo board for tube joint	1
17	Screw driver 10 inch	2
18	Screw driver 6 inch	5
19	Screw driver pointed	2
20	Wire gauge plate	1
21	Hacksaw frame	1
22	Tong tester	1
23	Electrical hand drilling m/c	1
24	Electrical bench grinder	1
		34
	Laboratory: Electrical Measurement	

Sr. No.	Name of Item	Qty.
1	Schering bridge	2
2	Experiment step up galvanometer	1
3	D-sauty bridge	2
4	Kelvin double bridge	2
5	M.I. Voltmeter 0/75/150/300 volt	2
6	M.I. ammeter 0/5/10 amp	2
7	Fixed inductor 100mH	1
8	Hays bridge	2
9	Maxwell bridge	2
10	3&1/2 digital multimeter	4
11	Wheatstone bridge	1
12	Single phase dynamo type power factor meter	1
13	Single phase auto transformer 240 volt, 10amp	1
14	Digital LCR meter	1
15	Inductance box	1
16	Single phase dynamo type wattmeter 5/10A,75/300/600 volt	2

17	Single phase dynamo type wattmeter 2.5/5A,75/150/300 volt	2
18	Potential transformer 220/110 volt, 10VA	1
19	Variable inductive load 1kVAR	1
20	Wheatstone bridge	1
	Total	19

Laboratory: Power Electronics

Sr. No.	Name of Item	Qty.
1	SCR commutation circuit board	1
2	3&1/2 digital multimeter	5
3	Regulated power supply 0-30volt, 5 amp	2
4	Ac phase control by SCR	1
5	30Mhz dual trace CRO	2
6	UJT based relaxation oscillator	1
7	Single phase Thyristered bridge inverter with Single phase 5 HP induction motor	1
8	Trainer board of Single phase half wave rectifier	1
9	Study & design of step down chopper	1
10	Study & design of snubber circuit	1
11	Microprocessor 8085 kit	2
12	Analog trainer kit	1
13	Digital Trainer kit	2
14	Trainer board of power electronics devices	9
	Total	18

Laboratory: Network Analysis

Sr. No.	Name of Item	Qty.
1	Trainer board of superposition & Reciprocity theorem	2
2	Trainer board for study of series parallel resonance	2
3	Trainer board for transient response of RC circuit	2
4	Trainer board for frequency response of special RC selective network	2
5	Trainer board to plot magnitude response of low pass filter	1
6	Trainer board to plot magnitude response of high	1

	pass filter	
7	Trainer board to verify relationship between line & phase quantity of 3 phase	1
8	M.C. ammeter 0-10 amp	4
9	Analog multimeter	5
10	1Hz to 1MHz sine/square wave generator	2
11	3&1/2 digital ammeter 0-5A dc	5
12	3&1/2 digital ammeter 0-5A ac	2
13	3&1/2 digital multimeter	3
14	30Mhz dual trace CRO	2
15	3&1/2 digital voltmeter 0-500 volt dc	5
16	3&1/2 digital voltmeter 0-500 volt ac	2
17	Regulated power supply 0-30volt dc, 5 amp	2
18	Trainer board for verification of network theorem	5
19	3MHz digital function generator	2
20	Trainer board of theorems	8
21	Analog trainer kit	2
22	Digital Trainer kit	1
	Total	

Laboratory: Power system & High Voltage

Sr. No.	Name of Item	Qty.
1	Variac 230volt, 4 amp	3
2	3&1/2 digital multimeter	2
3	Demonstration board for different type of insulators	1
4	CT 13/5, 5VA class 5	3
5	CT 50/5, 5VA class 5	3
6	PT 220/110, 2kVA	2
7	Trainer board of string efficiency	1
8	Trainer board of short transmission line	1
9	Trainer board of medium transmission line	1
10	Oil test kit	1
	Total	

Laboratory: Control System Engg.

Sr. No.	Name of Item	Qty.
1	AC synchro transmitter & receiver demonstration	1

	unit	
2	Series voltage regulation as a close system	1
3	Servo control voltage stabilizer	1
4	CRO 20MHz	4
5	Potential error detector	1
6	DC position control system	1
7	Linear system simulator	1
8	Compensator design	1
9	PID controller	1
10	3MHz digital function generator	2
11	Signal generator	2
	Total	

LAB – ELECTRICAL MACHINE

S. NO.	NAME OF ITEM	QTY
1	MI Voltmeter 0-600v	5
2	MI Voltmeter 0-300 v	5
3	MI Voltmeter 0-50 v	5
4	MI Voltmeter 0-300/600 v	5
5	PMMC Voltmeter 0-300 v	5
6	PMMC Voltmeter 0-100 v	5
7	Dynamo type wattmeter 0-15 A, 0-300/600v	2
8	Dynamo type wattmeter 0-2.5A, 0-75/300v	2
9	Dynamo type wattmeter 0-5/10A, 0-150/300v	2
10	PMMC Ammeter 0-30A	3
11	PMMC Ammeter 0-15A	5
12	PMMC Ammeter 0-10A	5
13	PMMC Ammeter 0-5A	5
14	MI ammeter 0-1 A	5
15	MI ammeter 0-2 A	5
16	MI ammeter 0-5 A	5
17	MI ammeter 0-10 A	5
18	MI ammeter 0-130A	3
19	tachometer	2
20	3 phase 415 v 5 hp 1440 rpm Squirrel cage induction motor with pony break arrangement	1
21	3 KW 220 v 1500 rpm DC shunt motor with pony break arrangement	1
22	3 phase 415 v 5 hp 1440 rpm slip ring induction	1

	motor with pony break arrangement	
23	3KVA 1 phase 220/110 v transformer	3
24	Single phase 1hp 220 v 1440 rpm squirrel cage induction motor with pony break arrangement	1
25	3 phase 415 v 5 hp 1500 rpm Alternator coupled with dc shunt motor 3KW 220v 1500 rpm	1
26	3 phase 1kva 415/220v center tapped transformer	1
27	3 phase 415 volt 5 kva auto transformer	1
28	Synchroscope 3 phase 440 volt 1440 sq IM	1
29	3 ½ Digital multimeter	4
30	3 phase rectifier i/p 0-415 v, o/p 0-250,5 kw	2
31	AC servomotor	1
32	3 phase lamp load 3 KW 415 v	1
33	1 phase lamp load 2 KW 220 v	1
34	1 phase 230v, 3kVA auto transformer	2
35	Stroboscopic tachometer	1
36	Phase sequence indicator	1
37	3 phase variable inductive load 415v, 3kVAR	1
38	3 phase variable capacitive load 415v, 3kVAR	1
39	3&1/2 digit tonge tester	1
40	Lamp load 2.5kW,110volt,	1
41	3 phase 5 HP 415 volt 1500 rpm synchronous machine	1
42	Stepper motor 220 volt .5 hp	1
43	Digital frequency meter	1
44	Single phase transformer 220/110v 500 VA	1
45	Toolkit	1
46	Megger	1
47	3 phase variable rheostat 0-100v 20A	1
48	5 kw 220v dc compound generator coupled with 3 phase 415 volt 7.5 hp 1500 rpm squirrel cage IM	1
49	Digital ammeter MI	2
50	DOL starter	1
51	Digital wattmeter	2
	Total	

5. MECHANICAL ENGINEERING DEPARTMENT

List of Equipment

Material Testing Laboratory

S. No.	Details of Item with specification	Quantity
1	Universal testing machine capacity 20 tones with attachment of tension compression & bending Model No. UT-40 Sr. No. 2020	01 No.
2	Torsion Testing Machine capacity 50 kg-m, Rang : 10,25&50 S. No. 2001-15	01 No.
3	Brinell cum Rockwell hardness Tester Capacity : 25 kgf.	01 No.
4	IZOD & CHARPY Impact Testing Machine (164 Joules & 300 Joules)	01No.
5	Compression Testing Machine Capacity 100 T	01 No.

Heat Transfer Laboratory

S. No.	Details of Item with Specification	Quan-tity
1	Thermal conductivity of Insulating materials appratus temprature indicator (0-300 ⁰ C)	01 No.

S. No.	Details of Item with Specification	Quan-tity
2	Heat Transfer Through composite walls appratus temprature indicator (0-300 ⁰ C)	01 No.
3	Heat Transfer in Filmwise and Dropwise condensation appratus temprature indicator (0-300 ⁰ C)	01 No.
4	Heat Transfer in Natural and Forced convection appratus (Pin Fin Appratus) temprature indicator (0-300 ⁰ C)	01 No.

Thermo Dynamics & I.C Engines Laboratory

S. No.	Details of Item with Specification	Quan-tity
1	Single Cylinder(vertical) Four Stroke Diesel Engine Testrig "Kirlosker Make" 5 H.P., 1500 r.p.m Water cooled engine with swinging field electrical dynamometer Type : AV1 Engine No. 10.1012/01D0115	01 No.
S. No.	Details of Item with Specification	Quan-tity
2	Two Stage Compressor Testrig " ELGI Make" with twin cylinder Model No. : TSO312-OH Fab. No.078 Tank No.088/160 lts. Mfg. 03/5/2001 Displacement volume : 400 LPM W.P. : 12 kgf/cm ²	01 No.

Dynamics of Machines & Vibration Laboratory

S. No.	Details of Item with Specification	Quan-tity
MODELS OF FOLLOWING ITEMS EXISTING IN THE LABORATORY		
1	Single stage Helical gear	01 No.
2	Epicyclic gear	01 No.
3	Epicyclic gear sun & planet	01 No.
4	Worm gear	01No.
5	Train of Gear wheels	01 No.
6	Model of Belt pulley	01 No.
7	Torsion Appratus (Vertical)	01 No.
8	Searle's Appratus to determine youngs modulus of elasticity	01 No.
9	Motorised Gyroscope	01 No.

10	Static & Dynamic Balancing Machine	01 No.
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S. No.	Details of Item with Specification	Quan-tity
MODELS OF FOLLOWING ITEMS EXISTING IN THE LABORATORY		
11	Vibration Laboratory equipment a set of 11 Nos. of experiments.	01 No.
12	Universal Governor Apparatus with all the attachments of Watt, Porter & Hartness	01 No.
13	Chain Drive	01 No.
14	Train of Gear wheels	01 No.
15	Worm & Worm wheel Double purchase	01 No.
16	Cycloidal Gear	01 No.

Kinematics of Machines Laboratory

S. No.	Details of Item with Specification	Quan-tity
MODELS OF FOLLOWING ITEMS EXISTING IN THE LABORATORY		
1	Kinematic Pairs	01 Set
2	Cam and Follower	01 set of (05 items)
3	Centrifugal clutch	01 No.
4	Conical Friction clutch	01 No.
5	Double shoe brake	01 No.
6	Gear box (Three Forward & one reverse speed)	01 No.
7	Differential Gear	01 No.
8	Multiplate clutch	01 No.
9	Centrifugal Force Apparatus	01 No.

Fluid Mechanics and Hydraulics Laboratory

S. No.	Details of Item with Specification	Quan-tity
1	Pitot Tube	01 No.
2	Micro Meter contraction gauge	01 No.
3	Venturimeter (CI) 1.5"	01 No.
4	Venturimeter (CI) 2"	01 No.
5	Orifice meter (CI) 1.5"	01 No.

6	Orifice meter (CI) 2"	01 No.
7	Manometer	01 No.
8	Manometer	01 No.
9	Manometer	01 No.
10	Inclined tube manometer	01 No.
11	Hydrolic "RAM" (Model)	01 No.
12	Delaval Turbine Window	01 No.
13	Kaplan Turbine Model	01 No.
14	Pure Reaction Turbine Model	01 No.
15	Impulse Turbine Model	01 No.
16	Pelton Turbine Model	01 No.
17	Francis Turbine Model	01 No.

Miscellaneous Items

S. No.	Details of Item with Specification	Quan-tity
1	Object Drawing Models	14 Pieces
2	Cube 20x20 cmsq	1 No.
3	Projection of Straight Line Appratus	1 No.
4	Wet and dry bulb Hygrometer	1 No.

Refrigeration and Air-Conditioning Laboratory

S. No.	Details of Item with Specification	Quan-tity
1	Air Conditioning Trainer Test rig Cooling Capacity 3.5 KW Reigrigerant : R-22 with all the necessary attachments	1 No.

CNC Laboratory

S. No.	Details of Item with Specification	Quan-tity
1	CNC Lab trainer (VLMT-100) including controller and 2HP spindle drive and Basic Machine 2 ^{1/2} CONCOMMITMENT ACCESSORIES self centering 3 jaw chuck variable speed driver system with 2 HP P.C & color monitor coolant system with necessary set of tooling 8 station automatic index table turret.	1 No.

Work shop

1. Fitting Shop

S. No.	Details of Item with Specification	Quan-tity
1	Needle file set	14 Pieces

Work shop
1. Fitting Shop

S.No.	Details of Item with Specification	Quan-tity
1	Needle file set	8
2	steel Rule 12 inch	8
3	Try Squire 6 inch	8
4	Try Squire 12 inch	6
5	Try Squire 10 inch	4
6	Fix Spanner Set 6x22	2
7	Ring Spanner Set 6x22	2
8	Hack Saw Frame Fixed	8
9	Hand Vice	2
10	Nose Plier 6inch	8
11	Insulated Plier 8 "	8
12	Outside Caliper 12"	8
13	Inside Caliper 12"	8
14	Outside Caliper 6"	8
15	Inside Caliper 6"	8
16	Inside Caliper 10"	10
17	Divider Caliper 10"	6
18	Insulated Plier 6 "	8
19	Tap Wrench	2
20	Tap Set 1/4" to 1/2"	1
21	Drill Sleeve Set	1
22	Feeler Gauge	2
23	Drill Chuck 1/2"	1
24	Ratechet Set (Box Spanner)	1
25	Hamer with Handle 2Lbs	8
26	Heavy Duety Cold Chisels	8
27	Slage Hammer 4 Lbs	8
28	Slage Hammer 2 Lbs	8
29	Half Round File 10"	8

30	Triangular File 10"	8
31	Triangular File 6"	8
32	Screw Driver 8"	8
33	Screw Driver 6"	7
34	Screw Driver 3"	8
35	Letter Punch Set	3
36	Number Punch Set	2
37	Center Punch 6"	2
38	Hammer with Handle 1/2 Lbs	4
39	Hammer 1Lbs(Ball Peen)	8
40	Hammer Cross Peen 1 Lbs	8
41	Vernier Calliper 6"	8
42	Vernier Calliper 12"	4
43	Flat File 12" (Bastard)	4
44	Sprit Level 12"	4
45	Chisel 6"	4
46	Flat File 12" (Rough)	4
47	Flat File 12" (smooth)	8
48	Flat File 12" (Medium)	8
49	Hack Saw Frame Adjustable	8
50	Flat File 6"	4
51	Flat File 10" (Rough)	8
52	Flat File 6" (Smooth)	8
53	Center Punch 4"	8
54	HSS Drill (Taper Shank) 11/16"	4
55	HSS Drill (Taper Shank) 15/16"	1
56	HSS Drill (Taper Shank) 19/32"	1
57	HSS Drill (Taper Shank) 23/32"	1
58	HSS Drill (Taper Shank) 27/32"	1
59	HSS Drill (Taper Shank) 31/32"	1
60	Combination Set 12"	1
61	Dial Guage Only	1
62	Dial Guage with Stand	1
63	Out Side Micrometer (0 to 25)	2
64	Depth Gauge 6"	2
65	Surface Gauge	2
66	Jenny Caliper	8
67	Drill bit set HSS (1 to 12.5mm)	1
68	Angle Plate 200x100x125	2

69	Adjustable Reamer H4 to H14	2
70	Drill Machine (Electrical Hand Drill) 1/2"	1
71	Heavy Duety Bench Vice	16
72	Pipe Vice	1
73	Vernier Height Gauge 12"x300mm	1
74	Bevel Protector 12"	1
75	Vee Block with Clamp	2
76	Vee Block with Clamp	1
77	Spanner Set	4
78	Vee Block with Clamp 100x75x75	2

Work shop
2. Carpentry Shop

S.No.	Details of Item with Specification	Quan-tity
1	Hand Saw (Small)	4
2	Rib Saw	4
3	Tennon Saw	4
4	Auger 1/4x1/2"	2
5	G Clamp 75mm	4
6	Jambow (Pincer)	3
7	Insulated Plier	4
8	Hand Drill Machine 1/4"	2
9	Smoothing Plane	3
10	Wooden Foulding Rule 24"	4
11	Oil Stone 6"	4
12	Finner Chisel 3/4"	4
13	Finner Chisel 1"	4
14	Sash Cramp (Heavy Duty)	4
15	Mortise Chisel Set (3 No.)	4
16	Half Round Wood Rough File 12"	4
17	Round Wood Rough File 12"	4
18	Claw Hammer	2
19	Rubber Malet	4
20	Adge Bassula	2
21	Rose Bit	3
22	Center Bit	4
23	Wooden Marking Gauge	4
24	Steel Rule 12"	8
25	Ratchet Brace	2

26	Triangular File	8
27	Big Iron Jack Plane with blade	8
28	Small Iron Jack Plane with blade	8
29	Wood Working Vice (Heavy Duty)	16
30	Axe with Handle	2
31	Wood Turning Tool Set	4
32	Mortise Gauge (Aluminium)	4
33	Half Round Wood Rough File	4
34	Compass Saw	4
35	Pistol Saw	4
36	Jack Planer Blade	10
37	Half Round Bavel Chisel	4
38	Cheri Handle Nylon Wooden Mallet	24
39	Wood Working Vice (Heavy Duty)	1
40	Wood Turning Lathe with Moter	1
41	Wood Turning Tool Set	1
42	Tin Cutter 18"	1

3. Welding Shop

S.No.	Details of Item with Specification	Quan-tity
1	Chipping Goggle	4
2	Leather Gloves	4
3	Leather Apron	4
4	Welding Helmet with Glass	4
5	Electrode Welding Holder	2
6	Copper Cable Lugs	4
7	Hand Screen with Black Glass	4
8	Hand Screen with White Glass	4
9	Steel Wire Brush	3
10	Chipping Hammer	2
11	Oxygen Regulator	2
12	Gas Welding Hose Pipe (Blue)	10
13	Gas Welding Hose Pipe (Red)	10metre
14	Cylinder key	2
15	Spark Lighter	2
16	Welding Cable Copper	5 metre
17	Google with Clear Glass	4

18	Fix Spenner Set	4
19	Air Cooled Welding Machine 150 Amp	1
20	Air Cooled Welding Machine 250 Amp	1
21	Oxygen Cylinder	1
22	Gas Welding Torch Low Pressure	1
23	Gas Welding Torch High Pressure	1
24	Gas Cutting Torch	1
25	Gas Cutting Nozzle (HP)	3
26	Electrical Glove (Rubber)	1
27	Spot Welding Machine 3 KVA	1

4. Black Smithy

S.No.	Details of Item with Specification	Quan-tity
1	Tongs of Different Types	16
2	Divider 12"	8
3	Poker	1
4	Plumb Bob	3
5	Swage Block 12"	4
6	Shearing Machine	4
7	Showel	2
8	Rake Panja	2
9	Top & Bottom Swage	4
10	Industrial Blower with Starter 3 Ph 3 Hps	4
11	Hot Die Punch	2
12	Drift PUnch	2
13	Chisel Tong with Rod	4
14	Lag Vise 6"	1
15	Swadge Sliper Vise (Chain Vise)	1
16	Anvil 50 kg	2
17	Round Chaplate	4
18	Chisel Flatner Big & small	2
19	Smith Pliar	2
20	Swage Fuller Top & Bottom	8
21	Swage Top & Bottom 1"	5
22	Swage Top & Bottom 3/4"	2
23	Swage Top & Bottom 1/2"	4
24	Sheet Bending Machine 5 Feet	1
25	Moulding Box 12"x12"	5
26	Heavy duty Hand Press with Wheel	1

5. Machine Shop

S.No.	Details of Item with Specification	Quan-tity
1	Banch Grinder 1 Hp 3Phase	1
2	Drill Machine with Moter Banch Type	1
3	Reamer Set H S S Blade 21/32 to 1/32"	5
4	G Cramp 3"	6
5	G Cramp 4"	6
6	G Cramp 6"	4
7	G Cramp 8"	4
8	Angle Plate 15x125x12	1
9	Lathe Machines 4.5 feet Norton Type Comple with Standard Accessories	5
10	Shaper Machine Complete with Accessories 12" Stroke	1
11	Power Hack Saw Machine Complete with Accessories Cutting Stroke 8 "	1

Basic Mechanical Engineering Laboratory

S.No.	Details of Item with Specification	Quan-tity
1	Petrol Engine 2 Stroke Model	1
2	Petrol Engine 4 Stroke Model	1
3	Diesel Engine 2 Stroke Model	1
4	Diesel Engine 4 Stroke Model	1
5	Zenith Carburetter	1
6	SU Carburetter	1
7	Solex Carburetter	1
8	Carter Carburetter	1
9	Model of Steam Engine	1
10	Model of Piston Volve Steam Engine	1
11	Model of Different Mounting & Accessories	
	(a) Lever Safety Valve	1
	(b) Spring Loaded Safety Valve	1
	(c) Dead Weight Safety Valve	1
	(d) High Steam Low Water Safety Valve	1
	(e) Steam Injector Model	1
	(f) Pressure Gauge Bourdon Tube Type	1
	(g) Blow off cock	1
	(h) Fusible Plugs Set	1

	(i) Anti Priming Pipe	1
	(j) Expansion Steam Trap	1
	(k) Float Steam Trap	1
	(l) Reducing Valve	1
	(m) Stop Valve	1
	(n) Water Level Indicator	1
	(o) Economiser	1
	(p) super Heater	1
12	Key Set (5 Types)	1
13	Knuckle Joint	1
14	Cotter Joint	1
15	Flexible Coupling	1
16	Muff Coupling	1
17	Flanged Coupling	1
18	Oldham Coupling	1
19	Ball Bearing Models	1
20	Hanger Bracket SET	1
21	Diesel Engine Model (Cut Section Model) single Cylinder	1
22	Gib & Cotter Joint Model	1
23	Open Truck Bearing	1
24	Bush Bearing	1
25	Thrust Bearing	1
26	Plummer Block	1
27	Simple Bearing	1
28	Cochran Boiler Model	1
29	Lancashire Boiler Model	1
30	Babcock & wilcox Boiler Model	1
31	Four Cylinder four Stroke car petrol Engine Cut Section Model	1
32	Scooter Engine cut section model	1
33	Fuel Supply Diesel Engine Model	1

LIST OF EXPERIMENTAL SETUP IN EACH LABORATORY/WORKSHOP

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: FIRST YEAR(ALL BRANCHES)
SECONDD SEMESTER

SEM: FIRST &

NAME OF THE LAB: BASIC CIVIL ENGG. & ENGG. MECHANICS

SUBJECT: BASIC CIVIL ENGG. & ENGG. MECHANICS

SUBJECT

CODE: BE-204

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	To perform traverse surveying with prismatic compass, check for local attraction and determine corrected bearings and to balance the traverse by Bowditch's rule.
02	To perform leveling exercise by height of instrument of Rise and fall method.
03	To measure horizontal and vertical angles in the field by using Theodolite.
04	To determine (a) normal consistency (b) Initial and Final Setting time of a cement Sample.
05	To determine the workability of fresh concrete of given proportions by slump test or compaction factor test.
06	To determine the Compressive Strength of brick .
07	To determine particle size distribution and fineness modulus of course and fine Aggregate.
08	To verify the law of Triangle of forces and Lami's theorem.
09	To verify the law of parallelogram of forces.
10	To verify law of polygon of forces
11	To find the support reactions of a given truss and verify analytically.
12	To determine support reaction and shear force at a given section of a simply Supported beam and verify in analytically using parallel beam apparatus.
13	To determine the moment of inertia of fly wheel by falling weight method.
14	To verify bending moment at a given section of a simply supported beam.
15	<i>Traversing by Plane Table</i>
16	<i>Traversing by Surveyor's Compass</i>
17	<i>Determination of Coefficient of Friction</i>
18	<i>Determine The Forces in the Members of Jib Crane</i>

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: SECOND YEAR

SEM:

FOURTH SEMESTER

NAME OF THE LAB: SURVEYING LAB

SUBJECT: SURVEYING

SUBJECT

CODE: CE-403

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	Theodolite traversing
02	Profile leveling, contouring & cross sectioning
03	Determination of tachometric constants & uses of tachometer in various field works
04	Curve setting by different methods.

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: SECOND YEAR

SEM:

FOURTH SEMESTER

NAME OF THE LAB: MATERIAL & CONCRETE LAB

SUBJECT: CONSTRUCTION MATERIAL & TECHNIQUE

SUBJECT CODE: CE-404

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	Test on Bricks
02	Test on Aggregate
03	Test on Cement
04	Determination of Compressive Strength of Concrete with different Cement grades
05	Determination of Workability of Concrete by Slump Test
06	Determination of Workability of Concrete by compaction factor Apparatus
07	Determination of Workability of Concrete by Vee Bee Consistometer
08	Non destructive testing of concrete by Rebound Hammer test.
09	Non destructive testing of concrete by Ultrasonic method.
10	Test for the effect of admixtures on the concrete compressive strength
11	Testing of Micro Concrete
12	Design of Concrete Mix

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: SECOND YEAR

SEM:

FOURTH SEMESTER

NAME OF THE LAB: FLUID MECHANICS LAB

SUBJECT: FLUID MECHANICS -I

SUBJECT CODE: CE-405

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	To determine the local point pressure with the help of pitot tube.
02	To find out the terminal velocity of a spherical body in water.
03	Calibration of Venturimeter
04	Determination of Cc, Cv, Cd of Orifices
05	Calibration of Orifice Meter
06	Calibration of Nozzle meter and Mouth Piece
07	Reynolds experiment for demonstration of stream lines & turbulent flow
08	Determination of metacentric height
09	Determination of Friction Factor of a pipe
10	To study the characteristics of a centrifugal pump.
11	Verification of Impulse momentum principle.

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: SECOND YEAR

SEM:

FOURTH SEMESTER

NAME OF THE LAB: CAD CAM LAB

SUBJECT: COMPUTER PROGRAMMING-II

SUBJECT

CODE: CE-406

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	Working with call backs and delegates in C#
02	Code access security with C#.
03	Creating a COM+ component with C#.
04	Creating a Windows Service with C#
05	Interacting with a Windows Service with C#
06	Using Reflection in C#
07	Sending Mail and SMTP Mail and C#
08	Perform String Manipulation with the String Builder and String Classes and C#:
09	Using the System .Net Web Client to Retrieve or Upload Data with C#
10	Reading and Writing XML Documents with the XML Text-Reader/-Writer Class and C#
11	Working with Page using ASP .Net.
12	Working with Forms using ASP .Net
13	Data Sources access through ADO.Net,
14	Working with Data readers , Transactions
15	Creating Web Application.

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: THIRD YEAR

SEM: SIXTH

SEMESTER

NAME OF THE LAB: THEORY OF STRUCTURE LAB

SUBJECT: THEORY OF STRTUCTURE

SUBJECT

CODE: CE-601

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	AS per RGPV Scheme NO list of Experiments is Specified. Solution of Numerical problem of structural analysis are practiced in class room and solution are to be writing in practical journal.

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: THIRD YEAR
SEMESTER

SEM: SIXTH

NAME OF THE LAB: ENVIRONMENTAL ENGINEERING LAB
SUBJECT: ENVIRONMENTAL ENGINEERING - I
SUBJECT CODE: CE-603

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	To study the various standards for water
02	To study of sampling techniques for water
03	Measurement of turbidity
04	To determine the coagulant dose required to treat the given turbid water sample
05	To determine the conc. of chlorides in a given water samples
06	Determination of hardness of the given sample
07	Determination of residual chlorine by "Chloroscope"
08	Determination of Alkalinity in a water samples
09	Determination of Acidity in a water samples
10	Determination of Dissolved Oxygen (DO) in the water sample.

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: THIRD YEAR
SEMESTER

SEM: SIXTH

NAME OF THE LAB: GEO TECH ENGG LAB
SUBJECT: GEO TECH ENGG - I
CODE: CE-604

SUBJECT

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	Determination of Hygroscopic water content
02	Particle - size analysis
03	Determination of Specific gravity of soil particles
04	Determination of plastic limit
05	Determination of liquid limit
06	Determination of shrinkage limit
07	Permeability tests
08	Direct shear test
09	Consolidation test

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: THIRD YEAR
SEMESTER

SEM: SIXTH

NAME OF THE LAB: STRUCTURAL DESIGN & DRAWING LAB
SUBJECT: STRUCTURAL DESIGN & DRAWING-II
SUBJECT CODE: CE-605

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	AS per RGPV Scheme NO list of Experiments is Specified. Solution of Design problem are practiced in class room and solution are to be writing in practical journal.

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: FINAL YEAR
SEMESTER

SEM: EIGHTH

NAME OF THE LAB: GEO TECH ENGINEERING LAB
SUBJECT: GEO TECHNICAL ENGG-II

SUBJECT CODE: CE 801

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	Indian Standard Light Compaction Test/Std. Proctor Test
02	Indian Standard Heavy Compaction Test/Modified Proctor Test
03	Determination of field density by Core Cutter Method
04	Determination of field density by Sand Replacement Method
05	Determination of field density by Water Displacement Method
06	The corifiled Compression Test
07	Triaxial compression test
08	Lab. Vane Shear test
09	CBR Test
10	Demonstration of Plate Load Test SPT & DCPT

DEPARTMENT OF CIVIL ENGINEERING
STATUS OF THE LAB AS PER RGPV SCHEME

YEAR: FINAL YEAR

SEM: EIGHTH

SEMESTER

NAME OF THE LAB: STRUCTURAL DESIGN & DRAWING LAB

SUBJECT: ADVANCED STRUCTURAL DESIGN-II(RCC)

SUBJECT

CODE: CE 803

Sr. No.	LIST OF EXPERIMENT AS PER RGPV SCHEME
01	AS per RGPV Scheme NO list of Experiments is Specified. Solution of Design problem are practiced in class room and solution are to be writing in practical journal.

Computer Science & Engineering / Information Technology

List Of Lab experiment

SUB: COMPUTER GRAPHICS & MULTIMEDIA

1. Write a program to perform DDA Algorithm for line.
2. Write a program to perform a BRESENHEMS Algorithm for line
3. Write a program to perform a Bresenhems Algorithm for a Circle.
4. Write a program to perform a Midpoint Circle Algorithm for Circle.
5. Write a program to Translate an object(Ractangle, Triangle) in 2D & 3D.
6. Write a program to Rotate an object(Ractangle, Triangle) in 2D & 3D by a given Angle.
7. Write a program to Scale an object(Ractangle, Triangle) in 2D & 3D by given Scaling factors in x and y direction.
8. Write a program to Reflection of an object (Ractangle, Line Triangle) in 2D & 3D about
 - A. x axis
 - B. y axis
 - C. a line
9. Write a program to draw a Beizer curve.
10. Write a program to draw a Bspline curve.
11. Write a program to clip a point.
12. Write a program to clip a line using different Algorithm.
13. Write a program to clip a polygon using Algorithm.
14. Perform a animation of an object using Flash.

LIST OF EXPERIMENT

SUB: COMPILER DESIGN

1. Write a program for Lexical Analyzer.
2. Write a program to count number of token ,blank spaces, number of lines, Number of characters, number of special symbol in given text.
3. Write a program to convert given infix expression to postfix expression.
4. Write a program to perform a regular expression A*.
5. Write a program to make a symbol table.
6. Write a program to perform call by value.
7. Write a program to perform call by reference.
8. Write a program to perform copy by restore.
9. Write a program to compute a First and Follow in given production.
10. Write a program to make a LR parsing table.

LIST OF EXPERIMENT
SUBJECT-CP(iii) (VB/VC++)

NOTE-ALL EXPERIMENTS MUST BE WELL COMMENTED.

- 1 Write a program to check the events like click, mousemove, Mousedown etc.
- 2 Write a program to add two no's(take i/p from the user and Display message)
- 3 Write to illustrate the use of option implicit & option explicit.
- 4 Write a program to perform the work of calculator.
- 5 Make a database connection with Adodc,DataControl,Rdodc.
- 6 Write a program add ,delete, & copy items in combobox & List box
- 7 Write a program by using the checkbox & option button
- 8 Write a program to illustrate the use of Timer control.
- 9 Write a program that contains the use of all the math & String function.
- 10 Make a function & subroutine
- 11 Make a data report by using dataEnvionrnment.
- 12 Write a short note on use of each control.
- 13 Make a use of local window, watch window & immediate Window.
- 14 Explain IDE.

Data structure

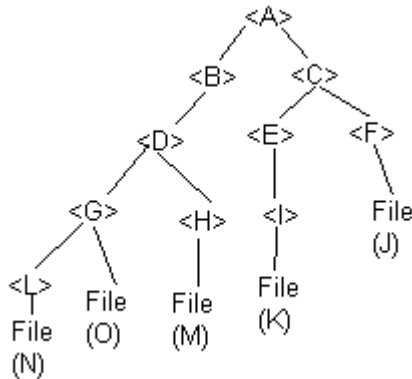
1. Write a program to find Fibbonacci series.
2. Write a program to find Factorial of given number.
3. Write a program to form a pyramid
1
12
123
1234
12345
4. Write a program to form a triangle.
*
* * *
* * * * *
* * * * * * *
- 5 Write a program to multiply of two given matrices.
- 6 Write a program to find the length of given string.
- 7 Write a program to concatenation of a given string.
- 8 Write a program to insert & delete an element into an array.
- 9 Write a program to form a linked list.
- 10 Write a program to swap the two variables using pointer.
- 11 Write a program to perform a Push & Pop into the stack
- 12 Write a program to perform a Queue & perform Insertion Deletion into the Queue.

- 13 Write a program for Bubble Sorting.
- 14 Write a program to Perform Selection Sort.
- 15 Write a program for Quick Sorting.

PRACTICAL PLAN

BRANCH/YEAR/SEM: - ALL COMMON BRANCH/ Ist/ Ist

- Q. 1:- Explain Dos? Describe its internal & external commands?
- Q. 2:- Write the command of this tree structure with step by step?



- Q. 3:- Describe operating system. Write down the different types of operating system & Its version?
- Q. 4:- Write down the different types of element of window & explain it?
- Q. 5:- Why we use MS-word? Write its basic tools which is used in MS-word?
- Q. 6:- Write down your RESUME using MS-word?
- Q. 7:- Write a table using spreadsheet & calculate the total marks & percentage?

Roll No.	Student Name	Engg.Physic	Engg. Mathes	Engg. Chemistry	CP-I	Total Marks	Percentage

(Record minimum 10 student in above table & marks out of 100)

- Q. 8:- Write down the procedure.
 - (a) Open the particular work sheet.
 - (b) Modify& deleting cells
 - (c) Changing date & time alignment
 - (d) Coping cell to cell
- Q. 9:- What is slide? Why we use?
- Q. 10:- Draw a slide & show its different views?

LIST OF EXPERIMENT

SUBJECT : DBMS

NOTE-ALL EXPERIMENTS MUST BE WELL COMMENTED.

1. Write SQL statement to Create a table.
2. Write SQL statement to Insert values in the table.
3. Write SQL statement to Delete the table.
4. Write SQL statement to Update the table.
5. Write SQL statements that use Group by, Order by and Where clause.
6. Write SQL statements that use Date functions.
7. Write SQL statements that use Arithmetic, String functions.
8. Write SQL statements by using Natural Join.
9. Write SQL statements by using Equi Join.
10. Write SQL statements by using Self Join.
11. Case study of Oracle.

LIST OF EXPERIMENT

SUB- OOAD

NOTE- ALL EXPERIMENT MUST BE WELL COMMENTED.

1. Tic Tac Toe requirement, object and class diagram.
2. Model for following and prepare at least 10 relation among them
School, playground, principle, school board, classroom, book, student, teacher, cafeteria, restroom, computer desk, chair, ruler, door, swing.
3. Analyze requirement and prepare object,dynamic and functional model for flight simulation system.
4. Prepare event trace for a telephone
5. Prepare system design for
 - a. Airline reservation system.
 - b. ATM system.
 - c. Tic Toc Toe
6. Do object design for file & directory system.
7. Implement LAN simulator in
 - a. An Object Oriented language.
 - b. Non Object Oriented language.

PRACTICAL QUESTIONS

OPERATING SYSTEM

- Q.1 Enter 5 processes & their arrival times & then schedule them according to FCFS scheduling algorithm.
- Q.2 Enter 5 processes & their burst-time & then print them according to SJF scheduling algorithm.
- Q.3 Enter 5 processes, their burst-time at a time quantum of 4 ms. Then print their sequence according to round-robin scheduling algorithm.
- Q.4 Enter 5 processes & their burst-time then display a gantt chart for FCFS scheduling algorithm using graphics.

Q.5 Write a program that ensures, after allocation of needed resources to a process system remain in safe state using banker's algorithm.

Q.6 What are the features of different operating systems you have studied.

Practical Questions

Subject : DBMS

Note: All Experiments should be well commented.

1. Write SQL Statement to create Employee and Dept table.
2. Write SQL Statement to set relation between Employee and Dept table.
3. Write SQL Statement to insert values in Employee and Dept table.
4. Write SQL Statement to update values in Employee and Dept table.
5. Write SQL Statement to delete records from Employee and Dept table.
6. Write SQL Statement to find average salary of all the employees in each dept.
7. Write SQL Statement to find all the employees that have salary greater than 8000.
8. Write SQL Statement to display all the employee names with their department names.
9. Write SQL Statement to display information about all employees with their department details.
10. Write SQL Statement to find the employee whose salary is greater than average salary of his department.

DEPARTMENT: C.S. SEMESTER: 5th SUBJECT CODE:

1. Write a program to implement FCFS Scheduling Algorithm.
2. Write a program to implement SJF Scheduling Algorithm.
3. Write a program to implement Round-Robin Scheduling Algorithm.
4. Write a program that displays Gantt's chart of given processes for FCFS Scheduling Algorithm using graphics programming.
5. Write a program to implement Banker's Algorithm.
6. Case study of different Operating Systems like DOS, Windows, Linux.

LIST OF EXPERIMENT SUB- OOAD

1. Simulate CPU scheduling algorithm using Queuing System.
 - A. FCFS(First come first serve)
 - B. SJF (Shortest job first)
 - C. Priority Algorithm
2. Simulate multiplexer/concentrator using queuing system
3. Simulate congestion control algorithm using queuing system.
4. Simulate Disk Scheduling Algorithm.
5. Prepare a model & write a program for inventory control.

6. Prepare a model & write a program for population control.
7. Prepare a model & write a program for energy management.

OPERATING SYSTEMS

ASSIGNMENT-1

- Q.1 Define Operating System & its types.
- Q.2 What is the main advantages of multi-programming?
- Q.3 Write Short notes on :-
- a. Basic concepts of CPU scheduling.
 - b. Scheduling criteria.
 - c. Scheduling algorithm
 - d. Storage Structure
 - e. System Calls
- Q.4 Consider the following set of processes with the length of the CPU-Burst time given in milliseconds: -

PROCESS	BURST-TIME	PRIORITY
P1	10	3
P2	1	1
P3	2	3
P4	1	4
P5	5	2

The processes are assumed to have arrived in the order P1, P2, P3, P4, P5 all at time 0.

- a. Draw four gantt charts illustrating the execution of these processes using FCFS, SJF, a non-preemptive priority (a smaller priority no. implies a higher priority) & RR (quantum=1) scheduling.
- b. What is the waiting time of each process for each of the scheduling algorithm in part a.

ASSIGNMENT-2

- Q.1 Define the term process and it's various steps with diagram.
- Q.2 Describe process scheduling.
- Q.3 How co-operating processes can communicate with each other describe its methods.

Q.4 Explain bakery algorithm.

Q.5 What do you understand by busy-waiting & what is its solution?

Q.6 Consider the following snapshot of a system

	Allocation	Max	Available
	A B C D	A B C D	A B C D
P0	0 0 1 2	0 0 1 2	1 5 2 0
P1	1 0 0 0	1 7 5 0	
P2	1 3 5 4	2 3 5 6	
P3	0 6 3 2	0 6 5 2	
P4	0 0 1 4	0 6 5 6	

Answer the following questions using the banker's algorithm:-

- What is the content of the matrix need?
- Is the system in a safe state?
- If a request from process P1 arrives for (0,4,2,0) can the request be granted immediately.

Q.7 Describe the methods for handling deadlock.

PRACTICAL QUESTIONS

OPERATING SYSTEM

- Enter 5 processes & their arrival times & then schedule them according to FCFS scheduling algorithm.
- Enter 5 processes & their burst-time & then print them according to SJF scheduling algorithm.
- Enter 5 processes, their burst-time at a time quantum of 4 ms. Then print their sequence according to round-robin scheduling algorithm.
- Enter 5 processes & their burst-time then display a gantt chart for FCFS scheduling algorithm using graphics.
- Write a program that ensures, after allocation of needed resources to a process system remain in safe state using banker's algorithm.
- What are the features of different operating systems you have studied.

COMPUTER NETWORK- V

- Q.1 Explain different hardware components attached to motherboard.
- Q.2 Define Networking and its types.
- Q.3 Describe various functions of each layer of OSI model.
- Q.4 Describe TCP/IP protocol.
- Q.5 What are the various tools used for making & testing cables.
- Q.6 Explain Transmission media.
- Q.7 What are different DOS commands used for installation & to support files of different Operating Systems.
- Q.8 Explain the different networking terms such as routers, repeaters, gateways & bridges.
- Q.9 Define Intranet, Extranet, DNS & Proxy Server.
- Q.10 Differentiate Hub & Switch also compare FAT & NTFS.
- Q.11 What are the installation steps for different operating systems like linux, windows98, xp.

SOFTWARE ENGINEERING LAB

Paper: Software Engineering Lab Tool

Required: Rational Rose Enterprise Edition List of Experiments:

1. Write down the problem statement for a suggested system of relevance.
2. Do requirement analysis and develop Software Requirement Specification Sheet (SRS) for suggested system.
3. To perform the function oriented diagram: Data Flow Diagram (DFD) and Structured chart.
4. To perform the user's view analysis for the suggested system: Use case diagram.
5. To draw the structural view diagram for the system: Class diagram, object diagram.
6. To draw the behavioral view diagram : State-chart diagram, Activity diagram
7. To perform the behavioral view diagram for the suggested system : Sequence diagram, Collaboration diagram
8. To perform the implementation view diagram: Component diagram for the system.
9. To perform the environmental view diagram: Deployment diagram for the system.
10. To perform various testing using the testing tool unit testing, integration testing for a sample code of the suggested system.

1. Study of Multiplexer and Demultiplexer
2. Study of Half Adder and Subtractor
3. Study of Full Adder and Subtractor
4. WAP to add two 8 bit numbers and store the result at memory location 200
5. WAP to multiply two 8 bit numbers stored at memory location 2000 and 2001 and stores the result at memory location 2000 and 2001.
6. WAP to add two 16-bit numbers. Store the result at memory address starting from 2000.
7. WAP which tests if any bit is '0' in a data byte specified at an address 2000. If it is so, 00 would be stored at address 2001 and if not so then FF should be stored at the same address.
8. Assume that 3 bytes of data are stored at consecutive memory addresses of the data memory starting at 2000. Write a program which loads register C with (2000), i.e. with data contained at memory address 2000, D with (2001), E with (2002) and A with (2001).
9. Sixteen bytes of data are specified at consecutive data-memory locations starting at 2000. Write a program which increments the value of all sixteen bytes by 01.
10. WAP to add 10 bytes stored at memory location starting from 3000. Store the result at memory location 300A

THEORY OF COMPUTATION

1. Design a Program for creating machine that accepts three consecutive one.
2. Design a Program for creating machine that accepts the string always ending with 101.
3. Design a Program for Mode 3 Machine
4. Design a program for accepting decimal number divisible by 2.
5. Design a program for creating a machine which accepts string having equal no. of 1's and 0's.
6. Design a program for creating a machine which count number of 1's and 0's in a given string.
7. Design a Program to find 2's complement of a given binary number.
8. Design a Program which will increment the given binary number by 1.
9. Design a Program to convert NDFFA to DFA.
10. Design a Program to create PDA machine that accept the well-formed parenthesis.

11. Design a PDA to accept WCWR where w is any string and WR is reverse of that string and C is a Special symbol.
12. Design a Turing machine that's accepts the following language $a^n b^n c^n$ where $n > 0$

LAB (LINUX)

1. To Study basic & User status Unix/Linux Commands.
2. Study & use of commands for performing arithmetic operations with Unix/Linux.
3. Create a file called wlcc.txt with some lines and display how many lines, words and characters are present in that file.
4. Append ten more simple lines to the wlcc.txt file created above and split the appended file into 3 parts. What will be the names of these split files? Display the contents of each of these files. How many lines will be there on the last file?
5. Given two files each of which contains names of students. Create a program to display only those names that are found on both the files.
6. Create a program to find out the inode number of any desired file.
7. Study & use of the Command for changing file permissions.
8. Write a pipeline of commands, which displays on the monitor as well as saves the information about the number of users using the system at present on a file called users.u.
9. Execute shell commands through vi editor.
10. Installation, Configuration & Customizations of Unix/Linux.
11. Write a shell script that accepts any number of arguments and prints them in the reverse order.
12. Write a shell script to find the smallest of three numbers that are read from the keyboard.
13. Write a shell script that reports the logging in of a specified user within one minute after he/she logs in. The script automatically terminates if the specified user does not login during a specified period of time.
14. Installation of SAMBA, APACHE, TOMCAT.
15. Implementation of DNS, LDAP services,
16. Study & installation of Firewall & Proxy server

LAB (PYTHON)

1. To write a Python program to find GCD of two numbers.
2. To write a Python Program to find the square root of a number by Newton's Method.
3. To write a Python program to find the exponentiation of a number.
4. To write a Python Program to find the maximum from a list of numbers.
5. To write a Python Program to perform Linear Search
6. To write a Python Program to perform binary search.
7. To write a Python Program to perform selection sort.
8. To write a Python Program to perform insertion sort.
9. To write a Python Program to perform Merge sort.
10. To write a Python program to find first n prime numbers.
11. To write a Python program to multiply matrices.
12. To write a Python program for command line arguments.
13. To write a Python program to find the most frequent words in a text read from a file.
14. To write a Python program to simulate elliptical orbits in Pygame.
15. To write a Python program to bouncing ball in Pygame.

CLOUD COMPUTING

1. Installation and configuration of Hadoop/Euceliptus etc.
2. Service deployment & Usage over cloud.
3. Management of cloud resources.
4. Using existing cloud characteristics & Service models .
5. Cloud Security Management. 6. Performance evaluation of services over cloud .

DATA SCIENCE& MACHINE LEARING

1. Write an R script, to create R objects for calculator application and save in a specified location in disk.
2. Write an R script to find basic descriptive statistics using summary, str, quartile function on mtcars& cars datasets
3. Write an R script to find subset of dataset by using subset (), aggregate () functions on iris dataset.
4. Find the data distributions using box and scatter plot. b. Find the outliers using plot. c. Plot the histogram, bar chart and pie chart on sample data.
5. Find the correlation matrix. b. Plot the correlation plot on dataset and visualize giving an overview of relationships among data on iris data. c. Analysis of covariance: variance (ANOVA), if data have categorical variables on iris data.
6. REGRESSION MODEL Import a data from web storage. Name the dataset and now do Logistic Regression to find out relation between variables that are affecting the admission of a student in a institute based on his or her GRE score, GPA obtained and rank of the student. Also check the model is fit or not. Require (foreign),
7. MULTIPLE REGRESSION MODEL Apply multiple regressions, if data have a continuous Independent variable. Apply on above dataset
8. REGRESSION MODEL FOR PREDICTION Apply regression Model techniques to predict the data on above dataset.
9. CLASSIFICATION MODEL a. Install relevant package for classification. b. Choose classifier for classification problem. c. Evaluate the performance of classifier.
10. 10 CLUSTERING MODEL a. Clustering algorithms for unsupervised classification. b. Plot the cluster data using R visualizations.

ELECTRICAL ENGINEERING DEPARTMENT :**INSTRUMENTATION (III SEM EX)**

S.No.	Name of Experiment
01	To calibrate a voltmeter with the help of a standard resistance & ammeter. Plot calibration curve.
02	Calibration of wattmeter by a standard wattmeter.
03	Calibrate an ammeter with the help of standard resistance and voltmeter.
04	Measurement of medium resistance by voltmeter-ammeter method.
05	Study and calibration of single phase energy-meter by wattmeter.
06	Study of megger and its application in high resistance measurement.
07	Measurement of power using two-wattmeter method.
08	Study of measurement of low resistance by Kelvin's double bridge method.

CONTROL SYSTEM (FOURTH SEM EX)

S.No.	Name of Experiment
01	To study and verify servo controller voltage stabilizer.
02	To study and verify potentiometer error detector
03	To study and verify D.C. position control system.
04	To study and verify linear system simulator
05	To study and verify compensation design circuit
06	To study and verify PID controller

BASIC ELECTRICAL ENGINEERING (1ST sem ALL BRANCHES)

S.No.	Name of Experiment
01	Measurement of active, reactive and apparent power in a series R,L,C circuit.
02	To perform open circuit and short circuit test on a single phase transformer
03	To determine turns ratio, voltage regulation and efficiency of single phase transformer by load test.
04	To plot no load or magnetization or open ckt characteristic of D.C. generator

05	Speed control of D.C. shunt motor by armature resistance control method and field flux control method and plot curve between speed vs armature current and speed vs field current
06	To study the three point and four point starter of D.C. shunt motor
07	To study constructional feature of 3 phase induction motor

Electrical drives (8TH sem EX)

S.No.	Name of Experiment
01	To control the speed of 3-phase slip ring induction motor resistance control.
02	To control the speed of 3-phase Synchronous motor.
03	Speed control of converter fed DC series motor (traction motor)
04	To study of breaking & energy recovery system of DC drive.
05	To control the speed of 3-phase slip ring induction motor by PWM inverter ckt.
06	To control the speed of 3-phase induction motor by AC controller.

Electrical drives

S.No.	Name of Experiment
01	To control the speed of 3-phase slip ring induction motor resistance control.
02	To control the speed of 3-phase synchronous motor.
03	Speed control of converter fed DC series motor (traction motor)
04	To study of breaking & energy recovery system of DC drive.

ELECTRO MECHANICAL ENERGY CONVERSION-I

S.No.	Name of Experiment
01	To Study and verify 3-Phase to 2-Phase Conversion or Scott connection.
02	To Determine the efficiency of single phase induction motor by load test.
03	Separation of no load loss of a Three phase squirrel cage Induction motor.
04	To Determine The Regulation of D.C. Shunt generator
05	Speed control of D.C. Shunt motor

06	To perform no load and Blocked rotor Test on a three phase squirrel cage induction motor .
07	To determine the efficiency of 3-phase Slip ring induction motor.
08	Speed control of 3-phase Slip ring induction motor by rotor resistance.
09	To perform no load and Blocked rotor Test on a single phase squirrel cage induction motor .
10	To determine the capacity of capacitor which are used starting purpose for single phase induction motor.

ELECTRO MECHANICAL ENERGY CONVERSION-II

S.No.	Name of Experiment
01	To plot the magnetizing curve of an alternator.
02	To evaluate the V curve of synchronous machine.
03	To perform no load and blocked rotor test on single phase induction motor.
04	To determine the regulation of three phase alternator at R,L and C load
05	To determine the efficiency of three phase synchronous machine.
06	To perform slip test on three phase synchronous machine
07	Synchronization of an alternator to infinite bus bar by dark lamp method.
08	To determine X_d'' & X_q'' of an alternator

NETWORK ANALYSIS(3RD sem EX,ES,CS)

S.No.	Name of Experiment
01	Verification of KCL and KVL
02	Verification of Thevenin's theorem
03	Verification of Norton's theorem
04	Verification of Maximum Power transfer theorem
05	Verification of Reciprocity theorem
06	Study of RC transient circuit
07	Study of resonance in RLC circuit
08	To determine the parameter of Two Port network using T configuration.

Power Electronics (5TH sem EX)

S.No.	Name of Experiment
01	To determine the output voltage of single phase half controlled convertor with the CRO
02	Verify commutation circuit
03	To study and determine output voltage and frequency of UJT relaxation oscillator with the help of CRO
04	To determine the output voltage of single phase converter at different frequencies.
05	To determine the output voltage and frequency of single phase bridge inverter.
06	To study cycloconverter
07	To design and analysis of MC Murry inverter

MECHANICAL ENGINEERING DEPARTMENT

Subject- energy conversion system-1 (steam engine)

1. Study of simple vertical boiler.
2. Study of Babcock and Wilcox boiler.
3. Study of boiler mountings.
4. Study of boiler accessories.
5. Study of separating and throttling dryness fraction apparatus.
6. Study of induced draft/forced draft/draft by chimney.
7. Study of different types of steam turbine.
8. study of boiler trial.

Subject- Heat and mass transfer

1. To determine thermal conductivity of insulating materials.
2. To determine thermal conductivity of composite slab draw temperature profile.
3. Pin fin in natural and forced convection.
4. To study boiling and condensation.
5. Study Stefan boltzman apparatus.
6. Study of emmisivity apparatus.
7. Study of parallel and counter flow heat exchanger.

Subject- Computer integrated manufacturing

1. PLC programming for automation.
2. Study of automatic and semiautomatic control system and writing the electrical analogy.
3. Producing and layout for GT for group of gobs to be manufactured.
4. A case study/tutorial using cap software.
5. Use of cam software for writing CAPP programmes.
6. Writing M and G codes for given operations.
7. Writing part programmes for given component on CNC.
8. Study of a robot and programming for picks and place operations.

Subject- Simulation and modeling

1. Introduction and AutoCAD and its command.
 - (a) Draw command
 - (b) Modify command
 - (c) Solid command
2. Study about modeling and its type.
3. Study about simulation and its type and Monte Carlo method
4. Study about G codes and M codes.
5. Study of CNC machine and its type.
6. Study typical part programming blocked for CNC machine.
7. Study of programme for straight turning operation.

Subject- kinematics of machine

1. Study of kinematics link and pairs.
2. Study of kinematics chain.
3. Study of lower pair mechanisms.
4. Study of cam and follower mechanisms.
5. Study of brakes.
6. Study of clutches.
7. Study of dynamometers.

Subject- Dynamics of machine

1. To perform experiment of static and dynamic balancing on the balancing Machine.
2. To determine the controlling forces on universal governor apparatus.
3. To study the phenomenon of gyroscopic reaction on motorized gyroscope.
4. Study of gear trains on the model.
5. Study of epicyclic gear train.
6. Study of sun and planet gear.
7. To perform experiments on universal vibration machine.

Subject- Refrigeration and air conditioning

1. To find cop cooling capacity of a.c system.
2. To observe the phenomenon of cooling and dehumidification with anemometer on the a.c trainer test rig.
3. To observe the phenomenon of cooling and dehumidification on the a.c trainer test rig.
4. To observe the phenomenon of heating and humidification on the a.c trainer test rig.
5. To observe the phenomenon of heating and dehumidification on the a.c trainer test rig.
6. To determine bypass factor of single row cooling coil.
7. To determine bypass factor of two row cooling coil.
8. To determine bypass factor of three row cooling coil.

Subject- Mechanics of material

1. To determine ultimate tensile strength of materials on the universal testing machine.
2. To determine the torsional strength of a material specimen on torsional testing machine.
3. To estimate the toughness of the material specimen on izod and charpy testing machine.
4. To find out brinell and Rockwell hardness number of a specimen on hardness testing machine.
5. To find out deflection of beam under different types of load(1)point loading (2)UDL on universal testing machine.
6. To determine proof strength of material on the UTM.
7. To perform experiments of single shear and double shear on UTM.
8. Study of shear stain curve on UTM.

Subject- PPCNC

1. To study the lathe machines and to perform various types of lathe Operations.
2. To study of drilling machines and to perform various operations.
3. To study of shaper machine its mechanism and various operations.
4. Study of geometry of single point cutting tool and multi point cutting tool.
5. Study of different types of grinding machines.
6. Study of cnc machines and various applications.

Subject- Thermodynamics and I.C.Engines

1. To determine specific fuel consumption of 4-stroke single cylinder diesel engine on the test rig.
2. To study the variation of B.P. and SFC of diesel engine on the test rig.
3. To find out volumetric efficiency of diesel engine on the test rig.
4. To estimate the heat carried away by the exhaust gases on the diesel engine test rig.
5. Determine of mechanical efficiency of the diesel engine test rig.
6. To determine volumetric efficiency of a two-stage compressor on the Reciprocating air compressor test rig.
7. To study the effect of inter cooler on the process of compression on the Compressor test rig.

Subject- Turbo machinery

1. Study of model of water turbines
 - (a) Pelton turbine
 - (b) Francis turbine
 - (c) Kaplan turbine
2. Study of centrifugal pumps.
3. Study of steam turbine at sugar mill near the campus.

Subject- Fluid mechanics

1. Verify Bernoulli's theorem on the venturimeter experimental set up.
2. To determine rate of flow of fluid through orifice meter set up.
3. To calculate discharge by Pitot tube.
4. To find vena contracta by micrometer To contraction gauge.
5. Study of manometers.

Subject- Basic mechanical engg.

1. Study of steam engine on the model.
2. Study of 4-stroke and 2-stroke diesel and petrol engines on the models.
3. Study of Cochran boiler.
4. Study of Lancashire boiler.
5. Study of Babcock and Wilcox boiler.

6. Study of different types of boiler mountings.
7. Study of different types of boiler accessories.
8. Study of lathe machine and its parts and various lathe operations.
9. Study of different types of measuring and inspection tools.

Subject- workshop practice

1. To study the fitting shop tools and prepares the job in fitting shop through various operations.
2. Study the welding processes and perform operations on electric arc welding and gas welding.
3. To prepare job in the carpentry shop.
4. To prepare job in machine shop.
5. To prepare job in smithy shop.

Subject- Heat and mass transfer

1. To determine thermal conductivity of insulating materials.
 2. To determine thermal conductivity of composite slab draw temperature profile.
 3. Pin fin in natural and forced convection.
 4. To study boiling and condensation.
 5. Study Stefan boltzman apparatus.
 6. Study of emmisivity apparatus.
 7. Study of parallel and counter flow heat exchanger

Subject- Computer integrated manufacturing

1. PLC programming for automation.
 - ❖ Study of automatic and semiautomatic control system and writing the electrical analogy.
 - ❖ Producing and layout for GT for group of gobs to be manufactured.
 - ❖ A case study/tutorial using cap software.
 - ❖ Use of cam software for writing CAPP programmes.
 - ❖ Writing M and G codes for given operations.
 - ❖ Writing part programmes for given component on CNC.
 - ❖ Study of a robot and programming for picks and place operations.

Subject- Simulation and modeling

8. Introduction and AutoCAD and its command.
 - (a) Draw command
 - (b) Modify command
 - (c) Solid command
9. Study about modeling and its type.
10. Study about simulation and its type and Monte Carlo method
11. Study about G codes and M codes.
12. Study of CNC machine and its type.
13. Study typical part programming blocked for CNC machine.
14. Study of programme for straight turning operation.

CHEMISTRY DEPARTMENT

A. Water testing :-

1. Determination of Total Alkalinity in water sample.
2. Determination of Total Hardness in water sample by complexometric titration method.
3. Determination of Chloride content in water sample.

B. Fuel's & Lubricant testing

1. Determination of flash & fire point by Pensky Martin Apparatus.
2. Determination of flash & fire point by Abel's apparatus.
3. Determination of viscosity & viscosity index by redwood Viscometer no. - 01.
4. Determination of viscosity & viscosity index by redwood Viscometer no. - 02.
5. Determination of moisture content in given coal sample.
6. Determination of volatile matter in given coal sample.
7. Determination of Ash content in given coal sample.

C. Alloy's Analysis

1. Determination of Cu & Co, Cr in Alloys by Iodometric titration.

Computing Facilities

- * Internet Bandwidth - 550 MBPS
- * Number and Configuration of System - 522 Latest Configuration
- * Total number of System connected with LAN : YES 522
- * Total number of System connected with WAN : NO
- * Major software packages available

Major software packages available

S.N.	NAME OF SOFTWARE	VERSION
1.	M.S. Windows 95	95
2.	MS Visual Basic 5.0	5.00
3.	M.S. Visual Studio 6.0	6.0
4.	Fortran 77 DOS	
5.	MS office 97	97
6.	Windows ME	
7.	Macromedia Dreamviewver 4 & Flash 5	
8.	Shreelipi 2.0	2.00
9.	Cobol ANSI	
10.	Dr. Soloman's AVTK	
11.	Norton Antivirus	2001
12.	Red hat Linux 7.1	7.1
13.	MS – NT Workstation	
14.	Oracle 8i	8.16
15.	Visual C++ 5.0	5.00
16.	Borland Turbo C++	
17.	Windows 98	98

*** Special purpose facilities available**

1. L.C.D.
2. Plotter
3. Web cam
4. Scanner
5. Printer
6. Zip Drive
7. Modem
8. CD Writers

*** Innovation Cell : YES**

*** Social Media Cell : YES**

List of Facilities available

- **Games and Sports Facilities:-**

Institute has its own spacious play ground amidst campus for Cricket, Football & Hockey. Apart from it there are indoor Badminton court , Table Tennis Hall & Volley Ball Court with a special attachment of Health Club. The institute has a sprinting track of 200 Mts. & GYM.

- **Extra Curriculum Activities**

Institute has regular cultural, literary & technical events.

- **Soft Skill Development Facilities**

Software Development, Computer Language, Computer Tools Training , Seminars, Infrastructure & Manpower Available, Audio Visual Infrastructure etc.

Teaching Learning process

Classroom Teaching , Tutorial Coaching , Seminars , Guest Lecturers & Visiting Faculty Lecturers, Group Discussions , Quiz competition , Online classes, Webinars, seminars and likewise practices.

- **Curricula and syllabi for each of the programmes as approved by the University.**

YES

- **Academic Calendar of the University**

YES

- **Academic Time Table**

YES

- **Teaching Load of each Faculty**

Average 20 Lecturers Per Head

- **Internal Continuous Evaluation System and place**

Mid Term Examination system, Assignments, Lab Work, Internal Viva before Practical Examination.

- **Students' assessment of Faculty, System in place.**

- 1) Feed Back System
- 2) Teacher Guardian Scheme

16. ENROLLMENT OF STUDENTS IN THE LAST 3 YEARS

2020 – 2021 : 591

2019 – 2020 : 711

2018 – 2019 : 700