Academic Booklet

Academic Year 2024-25

Bachelor of Engineering in Computer Science & Engineering
(B.Tech. CSE)

Department of

Computer Science & Engineering

Parul Institute of Engineering & Technology

Faculty of Engineering & Technology

Parul University

About University

A multidisciplinary destination of learning and innovation, propelling quality in higher education with a record of being India's youngest private university to receive NAAC A++ accreditation in the first cycle. Situated in Vadodara, Gujarat, Parul University, is an embodiment of the nation's essence of cultural heritage blended with modern innovations and academic practices for student enrichment, while fostering national and global development. The University is an amalgamation of faculties and institutes that offer a plethora of diploma, undergraduate, postgraduate and doctoral programs in numerous disciplines. Through its uniquely structured, industry linked and field aligned programs, the University holds a noteworthy record of fulfilling the infinite dreams of students, by launching their lucrative careers towards high trajectories through start-up incubation and impeccable placement records. The 150+ acre eco-friendly campus is home to over 50,000+ students from every State of India and over 3,500 international students from 75+ countries, making Parul University a truly culturally global destination. In addition to its NAAC A++ accreditation, the University holds global memberships in bodies such as the Association of Commonwealth Universities. The University's stamps of quality extend to its DSIR recognition for quality research, NABL accreditation for quality in clinical medical research, NABH accreditation for quality healthcare and ARIIA Top 50 ranking for innovation achievements nationwide. In recognition of Parul University's excellence in education it has been awarded for being the Best Private University in Western India by Praxis Media and Best University in Placements by ASSOCHAM. Recently PU achieved a significant milestone by receiving prestigious diamond rating in QS I-Gauge Indian University rating 2024-26.

Vision of University

To make successful academic quests through entrepreneurship, research, modernization and partnerships, thus making PU the finest educational destination.

Mission of Parul University

- Bridging the gap between academia and career, by paying emphasis on development programs for both students and staff.
- Promoting healthy relationships between PU's existing students, alumni, teachers and staff.
- Forming associations with other universities and corporate firms of the nation and the world.
- Presenting state of art infrastructure with high quality and energized work ethics

About the Institute

Parul Institute of Engineering and Technology (PIET) established in the year 2003, is a prominent educational institution located in Vadodara, Gujarat, India. It is part of Parul University and offers a range of undergraduate, postgraduate, doctoral programs and industry embedded programs in various engineering disciplines.
PIET is known for its modern infrastructure, state-of-the-art laboratories, and a strong emphasis on practical and industry-oriented education. The institute fosters innovation and research, providing students with opportunities to engage in projects and collaborations with industry partners. Additionally, PIET emphasizes holistic development through extracurricular activities, workshops, and seminars, aiming to produce well-rounded engineering professionals.
Reflecting its commitment towards academic excellence and overall development, Gujarat State Institute Ranking Framework (GSIRF) awarded Parul Institute of Engineering and Technology with 4 star ranking.

Vision of Institute

To be a centre par excellence for creating skilled professionals in Engineering.

Mission of Institute

To offer state-of-art education through undergraduate, postgraduate and doctoral programmes, for promoting entrepreneurship, enhancing employability, and engaging in research.

About the Department

VISION

To be a distinct hub of education that prepares skilled professional in the field of Computer Science and Engineering.

MISSION

• Enhance academic performance by adopting industry-oriented curriculum focusing on thrust area of computer education through integrated learning in collaboration with prominent industries.

• Preparing students to face challenges of real world through internships and project-based learning.

• Foster a research culture that results in sound knowledge base, high-quality publications, new products and IPR.

•Inculcate ethical consciousness in students so that they can achieve success in their professional endeavors and can become responsible citizens.

CODE OF CONDUCT FOR STUDENTS

- All students of Parul University shall compulsorily display their University ID cards by wearing it round their neck. If any student is found without an ID card on any day, he/she will be marked absent for that day.
- The university expects all the students to behave in a manner expected of a prudent person.
- The students shall be dressed in a presentable manner which does not invite criticism from any quarter.
- The students shall strictly adhere to the class timings and be punctual in attending all classes.
- The students shall display cordial, genial and respectful behaviour towards their teachers.
- The students should be polite, cooperative and respectful in dealing with the employees of the University.
- The students shall maintain the highest order of cleanliness in the classroom as well as in the college premises.
- The students should not indulge in boisterous behaviour at any place on the university campus.
- The students shall follow the directions issued in accessing common places such as library, canteen, sports fields, auditorium, gymnasium, swimming pool etc...
- The students shall strictly follow the schedules given by the class teacher regarding the assignments, class tests, examinations, practicals etc...and shall complete the assigned work within the duration specified by their teachers.
- The students shall follow the instructions given by the teacher during practicals in relation to the use of laboratory/workshops/implements/equipments...
- Whenever the student has queries regarding their performance from either the class teacher or from any office in the College/University, they should follow the procedures laid down for the same and approach the concerned with utmost respect to the Authority.
- The students shall pay all prescribed fees at the stipulated times and avoid being penalized for non-payment of fees.
- The students shall not indulge in unfair means during the conduct of class tests/ internal and external examinations.

- The students shall not indulge in unlawful assembly at any place in the campus.

- Any problem encountered by the students should be brought to the notice of the Authorities immediately available in the College/University.
- The students should never take law into their own hands and report any matter of lawlessness or harassment to the College Authorities immediately which, in turn, will initiate suitable action.
- The students shall participate in all national events such as Independence Day, Republic Day organized by the University.
- The students should not indulge in any of the activities which adversely affect the reputation of the University.
- The students shall not consume prohibited substances such as alcohol, narcotics, Marijuana, Heroin, Cocaine etc. and shall not keep in their custody/hostel premises illegal objects/ materials such as firearms, missiles, bombs, narcotics, alcohol or other intoxicants etc. Smoking and chewing of tobacco is strictly prohibited in the campus.

- UGC has directed all the universities to strictly implement anti-ragging measures in universities and colleges. It is also the responsibility of the institutions in the university to ensure safety of the newcomers and to protect them from any incidence which may harm either their physical or mental faculties. Any student, who has been found involved in the incident related to ragging, strict disciplinary action as enumerated in UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009 will be initiated against the delinquent student.

- Any violation of the provisions mentioned above will be viewed as an Act of Misconduct and university, after conducting a thorough probe into such incidents, shall initiate strict disciplinary action against delinquent students.

CODE OF CONDUCT FOR FOREIGN STUDENTS WHILE RESIDING OUTSIDE THE UNIVERSITY CAMPUS:

- A number of foreign nationals are studying in the University under various degree programmes. Those foreign students who stay outside the campus will have to adhere to certain code of conduct as mentioned below.
- They have to enter into a Rent Agreement with the owners of the accommodation and submit a copy of the same to the ISAC in the University
- They shall inform the local police about their residence
- Boys and girls should necessarily stay in separate accommodation
- They shall not consume any narcotic substance such as Marijuana, Heroin, Cocaine etc..... In case, they consume alcohol, they should necessarily have obtained permit for the same from competent authorities. Any violation would make them liable for disciplinary action from the concerned authorities.
- They should not play loud music in their accommodation which would serve as a nuisance to the neighbours. They should maintain cordial relations with their neighbours and shall live in harmony with them. Further, they should not indulge in any boisterous behavior such as getting into altercation with neighbours, causing disturbance to them etc... Moreover, they shall always maintain the social decorum by behaving politely, wearing appropriate attire so as to ensure the amicable living atmosphere with others.
- Whenever they leave town for any reason, they should necessarily inform the authorities in ISAC and also their counsellor.

Regulations for boarders residing in the university hostels:

GENERAL:

- All students shall conform to the rules of good conduct and shall respect the authorities of the university.
- Students shall put in efforts to protect the property of the university and make proper use of the facilities provided.
- No student shall deface or destroy any university or public property.

- Students shall maintain proper decorum in all places such as classrooms, hostels, laboratories, sports facilities, transport facilities etc...
- Students shall not disturb the normal work of the university by disorderly conduct, boisterous behaviour and unauthorized assembly.
- Ragging in any form is strictly prohibited.
- Consumption of alcohol or drunkenness or drug addiction or gambling on the campus is strictly prohibited.
- Students should not indulge in celebration of any festivals on days other than those notified by the university.
- Violation of any of the regulations will be treated as an act of indiscipline and shall be brought to the notice of the Hostel Superintendent by the concerned student.
- The Hostel Superintendent in consultation with the concerned Rectors shall enquire into the matter and may implement immediate measures such as giving a warning, imposing a fine or debarring from the hostel for a period not exceeding one month.
- In further cases of serious indiscipline, an Inquiry cum Disciplinary Committee may be formed comprising officials in the university and the said Committee shall inquire into acts of indiscipline and suggest punitive measures to the Higher Authorities in the University.
- The decision of the higher authorities in the university in all these matters shall be final and binding on all concerned.
- The Rector of each hostel shall hold weekly open meetings with the boarders on designated day and time to address the grievances of the boarders, if any.
- Similar open meetings will be held by the Hostel Superintendent with the boarders once a month on designated day and time to address the grievances of the boarders, if any.

ADMISSION TO THE HOSTELS:

- Any student admitted to any institution in the university is eligible to be admitted to the concerned hostel subject to the availability of accommodation.
- Preference will be given to the regular students of the university.
- Application may be made to the Rector of the hostel on payment of prescribed application fees.

- The Rector of the hostel in consultation with the Hostel Superintendent shall allot rooms to the applicants depending upon the availability.

PAYMENT OF HOSTEL FEES

- Every boarder in the hostel shall pay the prescribed fees from time to time.
- The Hostel Fees will be decided by the Management of the Trust running the hostels. In case, the prescribed fees are not paid in time, the boarder shall have to pay the fine as decided by the Management of the Trust

BEHAVIOUR OF BOARDERS IN THE HOSTEL

- The boarders shall not change the room allotted to them by the Rector without the permission of the Rector.
- The boarders shall keep their rooms neat and tidy and shall cooperate with the hostel management in safe upkeep of the common utilities provided to them.
- The boarders shall allow the Rector to inspect their rooms whenever demanded.
- The corridors, toilets, reading room, TV room, mess etc... are common utilities provided by the hostel and it is the responsibility of every boarder to use them appropriately without causing any damage.
- The boarders themselves are responsible for the safety of their belongings and are advised not to keep any valuable items in their rooms.
- The boarders shall not consume prohibited substances such as alcohol, narcotics,
- Marijuana, Heroin, Cocaine etc. and shall not keep in their custody/hostel premises illegal objects/ materials such as firearms, missiles, bombs, narcotics, alcohol or other intoxicants etc.
- Smoking and chewing of tobacco is strictly prohibited.
- Gambling in any form is strictly prohibited.
- Viewing prohibited material on personal computers, laptops, mobile and other electronics devices will be strictly viewed as an act of indiscipline.
- No person other than the boarders shall be allowed to enter the hostel premises without the permission of the Rector.

- Boarders shall not allow any guests to stay overnight in their rooms.
- No boarder shall stay outside the hostel after 9:00 PM without prior permission of the Rector. However, boarders in the Ladies' Hostel shall not remain outside the hostel beyond 7:30 PM without prior permission of the Rector. Any violation of this provision shall be viewed seriously and disciplinary proceedings will be initiated.
- Boarders shall treat all employees of the hostel with courtesy and respect.
- Boarders shall not hold any unauthorized meeting in the hostel premises.
- Boarders shall vacate the hostel during vacations to facilitate upkeep of the hostels.
- Boarders shall wear proper dresses when they visit the common room, dining hall or any public place on the university campus.
- Any complaint or grievances which the boarders have shall be reported to the Rector who in turn shall bring it to the notice of the Hostel Superintendent immediately for redressal.

HOSTEL MESS

- There shall be as many number of messes as is required in the university premises.
- All meals, breakfast etc... will be served only in the mess.
- Boarders shall have food only in that mess to which they are allotted.
- The mess charges shall be collected along with the hostel fees as determined by the Trust.
- Boarders shall treat all mess workers with courtesy and respect.
- Food will not be taken out of the mess for any reason.
- Any complaints regarding the quality of food shall be brought to the notice of the concerned Rectors and Hostel Superintendent.
- The boarders shall strictly adhere to the timings of the mess.
- The boarders will have to be properly dressed while coming to the mess.

PEO's, PO's & PSO's

PEO's:

PEO 1 Apply computer science and engineering theories, principles, and skills to address societal challenges.

PEO 2 Display a lifelong learning mindset and adapt to quick technological developments in the sector.

PEO 3 Exhibit professionalism, collaboration, leadership abilities, and awareness of contemporary demands.

PO's:

PO 1 Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2 Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using the first principles of mathematics, natural sciences, and engineering sciences.

PO 3 Design/Development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

PO 4 Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO 6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7 Environment and sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development.

PO 8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9 Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10 Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11 Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12 Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PSO's:

PSO 1 Demand as per recent development: An ability to analyze, design, verify, validate, code and maintain the solution of given problem to derive execution of software system.

PSO 2 Software skill: An ability to understand, apply and work with one or more domain using knowledge of mathematical techniques and principles with relevant areas of computer science.

ACADEMIC CALENDAR

Faculty of Engineering & Technology

Parul® University NAAC A++

ACADEMIC CALENDAR FOR ODD TERM - YEAR : 2024 - 25

Bachelor of Technology/DiplomaEngineering/IEDP/M.Tech Courses (Reg Sem - III, V, VII)

Week	MONDAY	Tuesday	Wednesday	Thursday	Friday	Saturday
01 June	10 Teaching Start	11	12	13	14	15
02	17	18	19	20	21	22
03	24	25	26	27	28	29 Weekly 1
04 July	01	02	03	04	05	06 Weekly 2
05	08	09	10	11	12	13 Weekly 3
06	15	16	17	18	19	20 Weekly 4
07	22	23	24	25	26	27 Weekly 5
08 July/Aug	29	30	31	01	02	03 Weekly 6
09	05 Mid Sem Exam	06 Mid Sem Exam	07 Mid Sem Exam	08 Mid Sem Exam	09 Mid Sem Exam	10 Mid Sem Exam
10	12	13	14	15 Independence Day	16	17
11	19 Rakshabandhan	20	21	22	23	24
12	26 Janmashtmi	27	28	29	30	31
13 September	02	03	04	05	06	07 Ganesh Chaturthi
14	09	10	11	12	13	14
15	16	17	18	19	20	21
16	23	24	25	26	27	28
17 Sept/Oct	30	01	02 Mahatma Gandhi Jayanti	03	04	05
18	07 TW Submission	08 TW Submission	09 TW Submission	10 TW Submission	11 TW Submission	12 Dusshera
19	14	15	16	17	18	19 Teaching End
20	21 ESE (Practical)	22 ESE (Practical)	23 ESE (Practical)	24 ESE (Practical)	25 ESE (Practical)	26 ESE (Practical)
21 Oct/Nov	28 Diwali Break	29 Diwali Break	30 Diwali Break	31 Diwali Break	01 Diwali Break	02 Diwali Break
22	04 Diwali Break	05 Diwali Break	06 Diwali Break	07 Diwali Break	08 Diwali Break	09 Diwali Break
23	11 ESE (Theory)	12 ESE (Theory)	13 ESE (Theory)	14 ESE (Theory)	15 ESE (Theory)	16 ESE (Theory)
24	18 ESE (Theory)	19 ESE (Theory)	20 ESE (Theory)	21 ESE (Theory)	22 ESE (Theory)	23 ESE (Theory)

Important Notes

1. Marks Locking date by HOD : 14 Oct, 2024
2. Marks Locking date by Principal and Dean : 15 Oct, 2024
3. End Sem Practical Dates : 21 Oct - 26 Oct, 2024
4. End Sem Theory Dates : 11 Nov - 23 Nov, 2024
5. End Sem Supplementary Exam Dates : 25 Nov, 2024 Onwards
6. New Term (Even) Commencement : 25 Nov, 2024 Onwards

Dr. Vipul Vekariya
Dean - Faculty of Engineering & Technology

TIME TABLES – 3B38 to 3B49

PARUL UNIVERSITY						
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY						
INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY						
ACADEMIC YEAR: 2024-25					YEAR: 2nd YEAR	
SEMESTER: 3RD					LEVEL: UG	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING					DIVISION: CSE_3B38 CSE	EFFECTIVE FROM: 10-06-2024
TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	CODE CHEF	3B38:2:DDS:MK:L-802 3B38:1:DE:SPG:L-803	LIBRARY/ SELF STUDY	3B38:DM:SNW:N-608	3B38:1:DBMS:AFS:L-802 3B38:2:DDS:MK:L-803	3B38:OOPJ:AG:N-501
10:45 - 11:45				3B38:DBMS:JG:N-608		3B38:OOPJ:AG:N-501
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	CODE CHEF	3B38:DDS:MK:N-502	3B38:DBMS:JG:N-410	3B38:1:DDS:MK:L-303 3B38:2:OOPJ:AG:L-304	3B38:DM:SNW:N-501	3B38:DE:SPG:N-501
01:35 - 02:25		3B38:DBMS:JG:N-502	3B38:DM:SNW:N-410		LIBRARY/ SELF STUDY	3B38:PCS:AN:N-501
02:25 - 02:45	RECESS TIME: 02:25- 02:45					
02:45 - 03:45	CODE CHEF	3B38:DE:SPG:N-208	3B38:1:OOPJ:AG:L-305 3B38:2:DBMS:JG:L-306	3B38:DE:SPG:N-208	3B38:DDS:MK:N-208	3B38:1:DDS:MK:L-307 3B38:2:DE:SPG:L-308
03:45 - 04:45		3B38:DM:SNW:N-208		3B38:PCS:RP:N-208	3B38:DDS:MK:N-208	

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures(3,4)	DDS	MUDRIK KAUSHIK	MK	mudrikkaushik@gmail.com	29393
303105202	Design of Data Structures Laboratory	DDS LAB	MUDRIK KAUSHIK	MK	mudrikkaushik@gmail.com	29393
			MUDRIK KAUSHIK	MK	mudrikkaushik@gmail.com	29393
303105203	Database Management System(3,2)	DBMS	Jay Gandhi (JG)	JG	jay.gandhi2881@paruluniversity.ac.in	10827
303105204	Database Management System Laboratory	DBMS LAB	Amin Shaikh(AFS)	AFS	amin.shaikh19068@paruluniversity.ac.in	19068
			Amin Shaikh(AFS)	AFS	amin.shaikh19068@paruluniversity.ac.in	19068
303105205	Object Oriented Programming with Java(2,2)	OOPJ	AARSHI GUPTA	AG	aarshi@bytexl.in	32551
303105206	Laboratory	OOPJ LAB	AARSHI GUPTA	AG	aarshi@bytexl.in	32551
303105220	Digital Electronics(3,2)	DE	Snehprabha Gujrathi	SPG	SNEHPRABHA.GUJRATHI33041@paruluniver	33041
303105221	Digital Electronics Laboratory	DE LAB	Snehprabha Gujrathi	SPG	SNEHPRABHA.GUJRATHI33041@paruluniver	33041
303191202	Discrete Mathematics(4,0)	DM	KMHNDEEP WANKHADE	SNW	sandeep.wankhade@paruluniversity.ac.in	259
303193203	Professional Communication Skills(2 TUT)	PCS	RIDHHI PANDYA	RP	riddhi.pandya20062@paruluniversity.ac.in	20062
	Professional Communication Skills(2 TUT)	PCS	AMRITHA NAIR	AN	amritha.nair21543@paruluniversity.ac.in	21543

CLASSROOM NO:	N-208,502,501,410,501608	FACULTY REPRESENTATIVE / MFT	Bhagyesha Pandhi
LAB/ TUTORIAL LOCATION:	L-802,L-803,L-303,L-304,L-802,L-803,L-307,L-308 (CV RAMAN BUILDING)		Bhagyesha.pandhi24831@paruluniversity.ac.in

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

3B38

PARUL UNIVERSITY						
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY						
INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY						
ACADEMIC YEAR: 2024-25					YEAR: 2nd YEAR	
SEMESTER: 3RD					LEVEL: UG	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING					DIVISION: CSE_3B39 CSE	EFFECTIVE FROM: 10-06-2024

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	3B39:2:DDS:MK:L-802 3B39:1:DE:SPG:L-803	3B39:DM:SNW:N-608	3B39:DE:SPG:N-409	3B39:1:DDS:MK:L-802 3B39:2:DE:SPG:L-803	CODE CHEF	3B39:DDS:MK: N-502
10:45 - 11:45		3B39:DBMS:YF:N-608	3B39:DM:SNW:N-409			3B39:DDS:MK: N-502
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	3B39:PCS:TC:N-502	3B39:DE:SPG:N-408	3B39:1:DBMS:YF:L-802 3B39:2:DDS:MK:L-803	LIBRARY/ SELF STUDY	CODE CHEF	3B39:DM:SNW:N-502
01:35 - 02:25	3B39:PCS:TC:N-502	3B39:DDS:MK:N-408				3B39:DE:SPG:N-502
02:25 - 02:45	RECESS TIME: 02:25 - 02:54					
02:45 - 03:45	3B39:OOPJ:AG:N-401	3B39:1:DDS:MK:L-311 3B39:2:OOPJ:AG:L-312	3B39:DBMS:YF:N-208	3B39:DBMS:YF: N-209	CODE CHEF	3B39:1:OOPJ:AG:L-311 3B39:2:DBMS:YF:L-312
03:45 - 04:45	3B39:OOPJ:AG:N-401		LIBRARY/ SELF STUDY	3B39:DM:SNW:N-209		

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	MUDRIK KAUSHIK	MK	mudrikkaushik@gmail.com	29393
303105202	Design of Data Structures Laboratory	DDS LAB	MUDRIK KAUSHIK	MK	mudrikkaushik@gmail.com	29393
303105203	Database Management System	DBMS	Yassir Farooqui(YF)	YF	yassir.farooqui270062@paruluniversity.ac.in	13801
303105204	Database Management System Laboratory	DBMS LAB	Yassir Farooqui(YF)	YF	yassir.farooqui270062@paruluniversity.ac.in	13801
			Yassir Farooqui(YF)	YF	yassir.farooqui270062@paruluniversity.ac.in	13801
303105205	Object Oriented Programming with Java	OOPJ	AARSHI GUPTA	AG	aarshi@bytexl.in	32551
303105206	Object Oriented Programming with Java Laboratory	OOPJ LAB	AARSHI GUPTA	AG	aarshi@bytexl.in	32551
303105220	Digital Electronics	DE	Snehprabha Gujrathi	SPG	SNEHPRABHA.GUJARATHI33041@paruluniversity.ac.in	33041
303105221	Digital Electronics Laboratory	DE LAB	Snehprabha Gujrathi	SPG	SNEHPRABHA.GUJARATHI33041@paruluniversity.ac.in	33041
303191202	Discrete Mathematics	DM	KMHNDEEP WANKHADE	SNW	sandeep.wankhade@paruluniversity.ac.in	259
303193203	Professional Communication Skills(2 TUT)	PCS	TEJAL CHAUHAN	TC	tejalrahul.chauhan21564@paruluniversity.ac.in	21564

CLASSROOM NO:	N-401,208,209,502,408,502,608,409	FACULTY REPRESENTATIVE / MFT	Edswanbiang Dhar edswanbiang.dhar29682@paruluniversity.ac.in
LAB/ TUTORIAL LOCATION:	L-208,L-803,L-311,L-312,(CV RAMAN BUILDING)		

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

3B39

PARUL UNIVERSITY						
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY						
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ACADEMIC YEAR: 2024-25				YEAR: 2nd YEAR		
SEMESTER: 3RD				LEVEL: UG		
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING				DIVISION: CSE_3B40 CSE		EFFECTIVE FROM: 10-06-2024

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	LIBRARY/ SELF STUDY	CODE CHEF	3B40:1:DDS:SK:L-802 3B40:2:OOPJ:AG:L-803	3B40:OOPJ:AG:N-609	3B40:DE:SSM:N-409	3B40:DDS:SK: N-608
10:45 - 11:45				3B40:OOPJ:AG: N-609	LIBRARY/ SELF STUDY	3B40:DE:SSM: N-608
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	3B40:1:DBMS:YF:L-802 3B40:2:DBMS:AFS:L-803	CODE CHEF	3B40:DDS:SK:N-411	3B40:DBMS:YF:N-608	3B40:1:OOPJ:AG:L-802 3B40:2:DDS:SK:L-803	3B40:DM:KRP: N-608
01:35 - 02:25			3B40:DDS:SK:N-411	3B40:DM:KRP:N-608		3B40:PCS:SB: N-608
02:25 - 02:45	RECESS TIME: 02:25 - 02:54					
02:45 - 03:45	3B40:DM:KRP:N-402	CODE CHEF	3B40:DE:SSM:N-209	3B40:2:DDS:SK:L-311 3B40:1:DE:SSM:L-312	3B40:PCS:SB:N-209	3B40:1:DDS:SK:L-309 3B40:2:DE:SSM:L-310
03:45 - 04:45	3B40:DBMS:YF:N-402		3B40:DM:KRP:N-209		3B40:DBMS:YF:N-209	

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	SUPRIYA K	SK	kristipatisupriya2003@gmail.com	33059
303105202	Design of Data Structures Laboratory	DDS LAB	SUPRIYA K	SK	kristipatisupriya2003@gmail.com	33059
303105203	Database Management System	DBMS	Yassir Farooqui(YF)	YF	yassir.farooqui270062@paruluniversity.ac.in	13801
303105204	Database Management System Laboratory	DBMS LAB	Yassir Farooqui(YF)	YF	yassir.farooqui270062@paruluniversity.ac.in	13801
			Amin Shaikh(AFS)	AFS	amin.shaikh19068@paruluniversity.ac.in	19068
303105205	Object Oriented Programming with Java	OOPJ	AARSHI GUPTA	AG	aarshi@bytexl.in	32551
303105206	Object Oriented Programming with Java Laboratory	OOPJ LAB	AARSHI GUPTA	AG	aarshi@bytexl.in	32551
303105220	Digital Electronics	DE	Susmita S. Mishra	SSM	susmita.mishra26699@paruluniversity.ac.in	26699
303105221	Digital Electronics Laboratory	DE LAB	Susmita S. Mishra	SSM	susmita.mishra26699@paruluniversity.ac.in	26699
303191202	Discrete Mathematics	DM	Susmita S. Mishra	SSM	susmita.mishra26699@paruluniversity.ac.in	26699
303193203	Professional Communication Skills(2 TUT)	PCS	Dr. KOMAL PATEL	KRP	komal.patel20253@paruluniversity.ac.in	20253
	Professional Communication Skills(2 TUT)	PCS	SANTOSH BHAGAT	SB	santosh.bhagat24268@paruluniversity.ac.in	24268

CLASSROOM NO:	N-402,209,608,411,609,409	FACULTY REPRESENTATIVE / MFT	Priyanka Mehta
LAB/ TUTORIAL LOCATION:	L-802,L-803,L-309,L-310.L-311,L-312 (CV RAMAN BUILDING)		priyanka.mehta21539@paruluniversity.ac.in

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

3B40

PARUL UNIVERSITY						
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY						
INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY						
ACADEMIC YEAR: 2024-25					YEAR: 2nd YEAR	
SEMESTER: 3RD					LEVEL: UG	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING					DIVISION: CSE_3B41 CSE	EFFECTIVE FROM: 10-06-2024
TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	3B41:1:DDS:SK:L-804 3B41:2:OOPJ:AG:L-805	CODE CHEF	3B41:DBMS:AFS:N-410	3B41:2:DDS:SK:L-804 3B41:1:DE:SSM:L-805	LIBRARY/ SELF STUDY	3B41:PCS:AZ:N-609
10:45 - 11:45			3B41:DE:SSM:N-410		3B41:DE:SSM:N-405	3B41:DBMS:AFS:N-609
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	3B41:DE:SSM:N-608	CODE CHEF	3B41:OOPJ:AG:N-501	3B41:DDS:SK:N-609	LIBRARY/ SELF STUDY	3B41:1:DDS:SK:L-411 3B41:2:DE:SSM:L-412
01:35 - 02:25	3B41:DM:KRP:N-608		3B41:OOPJ:AG:N-501	3B41:DBMS:AFS:N-609		
02:25 - 02:45	RECESS TIME: 02:25 - 02:54					
02:45 - 03:45	3B41:DDS:SK:N-403	CODE CHEF	3B41:1:DBMS:AFS:L-311 3B41:2:DDS:SK:L-312	3B41:DM:KRP:N-401	3B41:1:OOPJ:AG:L-309 3B41:2:DBMS:AFS:L-310	3B41:DM:KRP:N-203
03:45 - 04:45	3B41:DDS:SK:N-403			3B41:PCS:AZ:N-401		3B41:DM:KRP:N-203

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	SUPRIYA K	SK	kristipatisupriya2003@gmail.com	33059
303105202	Design of Data Structures Laboratory	DDS LAB	SUPRIYA K	SK	kristipatisupriya2003@gmail.com	33059
303105203	Database Management System	DBMS	Amin Shaikh(AFS)	AFS	amin.shaikh19068@paruluniversity.ac.in	19068
303105204	Database Management System Laboratory	DBMS LAB	Amin Shaikh(AFS)	AFS	amin.shaikh19068@paruluniversity.ac.in	19068
			Amin Shaikh(AFS)	AFS	amin.shaikh19068@paruluniversity.ac.in	19068
303105205	Object Oriented Programming with Java	OOPJ	AARSHI GUPTA	AG	aarshi@bytexl.in	32551
303105206	Object Oriented Programming with Java	OOPJ LAB	AARSHI GUPTA	AG	aarshi@bytexl.in	32551
303105220	Digital Electronics	DE	Susmita S. Mishra	SSM	susmita.mishra26699@paruluniversity.ac.in	26699
303105221	Digital Electronics Laboratory	DE LAB	Susmita S. Mishra	SSM	susmita.mishra26699@paruluniversity.ac.in	26699
303191202	Discrete Mathematics	DM	Dr. KOMAL PATEL	KRP	komal.patel20253@paruluniversity.ac.in	20253
303193203	Professional Communication Skills(2 TUT)	PCS	DR. ALIZEHRA RAZA	AZ	alizehra.raza19436@paruluniversity.ac.in	19436

CLASSROOM NO:	N-403,401,203,608,501,609,410,609	FACULTY REPRESENTATIVE / MFT	Hiral Vyas
LAB/ TUTORIAL LOCATION:	L-804,L-805,L-311,L-312,L-411,L-412 (CV RAMAN BUILDING)		hiral.vyas30738@paruluniversity.ac.in

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

3B41

PARUL UNIVERSITY FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY						
ACADEMIC YEAR: 2024-25					YEAR: 2nd YEAR	
SEMESTER: 3RD					LEVEL: UG	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING					DIVISION: CSE_3B42 CSE	EFFECTIVE FROM: 10-06-2024

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	3B42:DDS:JD:N-502	3B42:2:DDS:JD:L-804 3B42:1:DE:SAS:L-805	CODE CHEF	3B42:OOPJ:SRK:N-610	3B42:DM:MKN:N-410	3B42:1:DDS:JD:L-311 3B42:2:OOPJ:SRK:L-312
10:45 - 11:45	3B42:DDS:JD: N-502			3B42:OOPJ:SRK:N-610	LIBRARY/ SELF STUDY	
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	3B42:1:OOPJ:SRK:L-804 3B42:2:DBMS:SM:L-805	3B42:DBMS:SM:N-409	CODE CHEF	3B42:1:DBMS:SM:L-804 3B42:2:DDS:JD:L-805	LIBRARY/ SELF STUDY	3B42:DBMS:SM:N-411
01:35 - 02:25		3B42:DM:MKN:N-409			3B42:DE:SAS:N-207	LIBRARY/ SELF STUDY
02:25 - 02:45	RECESS TIME: 02:25 - 02:54					
02:45 - 03:45	3B42:DM:MKN:N-404	3B42:DDS:JD:N-209	CODE CHEF	3B42:DM:MKN:N-402	3B42:1:DDS:JD:L-313 3B42:2:DE:SAS:L-409	3B42:PCS:MM: N-204
03:45 - 04:45	3B42:DE:SAS:N-404	3B42:DE:SAS:N-209		3B42:DBMS:SM:N-402		3B42:PCS:MM: N-204

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	JUHI DARJI	JD	darjijuhi70@gmail.com	29743
303105202	Design of Data Structures Laboratory	DDS LAB	JUHI DARJI	JD	darjijuhi70@gmail.com	29743
303105203	Database Management System	DBMS	Sandeep Mehta(SM)	SM	sandeep.mehta22424@paruluniversity.ac.in	22424
303105204	Database Management System Laboratory	DBMS LAB	Sandeep Mehta(SM)	SM	sandeep.mehta22424@paruluniversity.ac.in	22424
			Sandeep Mehta(SM)	SM	sandeep.mehta22424@paruluniversity.ac.in	22424
303105205	Object Oriented Programming with Java	OOPJ	SABARISH RAMESH KUMAR	SRK	sabarishrkb@gmail.com	29867
303105206	Object Oriented Programming with Java Laboratory	OOPJ LAB	SABARISH RAMESH KUMAR	SRK	sabarishrkb@gmail.com	29867
303105220	Digital Electronics	DE	Dr. Swati A Sharma	SAS	swati.sharma25834@paruluniversity.ac.in	25834
303105221	Digital Electronics Laboratory	DE LAB	Dr. Swati A Sharma	SAS	swati.sharma25834@paruluniversity.ac.in	25834
303191202	Discrete Mathematics	DM	Dr. Monika Ketan Naik	MKN	monika.naik26108@paruluniversity.ac.in	26108
303193203	Professional Communication Skills(2 TUT)	PCS	MOHINI MACWAN	MM	ohini.macwan20067@paruluniversity.ac.	20067

CLASSROOM NO:	N-502,404,209,402,204,411,207,409,410	FACULTY REPRESENTATIVE / MFT	Maradiya Miral
LAB/ TUTORIAL LOCATION:	L-804,L-805,L-313,L-409 (CV RAMAN BUILDING)		miralben.maradiya29300@paruluniversity.ac.in

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

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PARUL UNIVERSITY						
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY						
INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY						
ACADEMIC YEAR: 2024-25					YEAR: 2nd YEAR	
SEMESTER: 3RD					LEVEL: UG	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING					DIVISION: CSE_3B43 CSE	EFFECTIVE FROM: 10-06-2024
TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	3B43:DE:SAS:N-608	CODE CHEF	3B43:DDS:JD:N-411	3B43:DE:SAS:N-611	3B43:2:DDS:JD:L-804 3B43:1:DE:SAS:L-805	3B43:DBMS:SM:N-107
10:45 - 11:45	3B43:DM:PRT:N-608		3B43:DDS:JD: N-411	3B43:DM:PRT:N-611		LIBRARY/ SELF STUDY
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	3B43:DM:PRT:N-609	CODE CHEF	3B43:DBMS:SM:N-502	3B43:OOPJ:SRK:N-610	LIBRARY/ SELF STUDY	3B43:1:DDS:JD:L-313 3B43:2:DE:SAS:L-409
01:35 - 02:25	3B43:DM:PRT:N-609		3B43:DE:SAS:N-502	3B43:OOPJ:SRK:N-610		
02:25 - 02:45	RECESS TIME: 02:25 - 02:54					
02:45 - 03:45	3B43:1:OOPJ:SRK:L-411 3B43:2:DBMS:SM:L-412	CODE CHEF	3B43:1:DBMS:SM:L-411 3B43:2:DDS:JD:L-410	3B43:1:DDS:JD:L-410 3B43:2:OOPJ:SRK:L-409	3B43:PCS:MC:N-410	3B43:DBMS:SM:N -205
03:45 - 04:45					3B43:PCS:MC:N-410	3B43:DDS:JD:N-205

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	JUHI DARJI	JD	darjijuhi70@gmail.com	29743
303105202	Design of Data Structures Laboratory	DDS LAB	JUHI DARJI	JD	darjijuhi70@gmail.com	29743
303105203	Database Management System	DBMS	Sandeep Mehta(SM)	SM	sandeep.mehta22424@paruluniversity.ac.in	22424
303105204	Database Management System Laboratory	DBMS LAB	Sandeep Mehta(SM)	SM	sandeep.mehta22424@paruluniversity.ac.in	22424
			Sandeep Mehta(SM)	SM	sandeep.mehta22424@paruluniversity.ac.in	22424
303105205	Object Oriented Programming with Java	OOPJ	SABARISH RAMESH KUMAR	SRK	sabarishrkb@gmail.com	29867
303105206	Object Oriented Programming with Java Laboratory	OOPJ LAB	SABARISH RAMESH KUMAR	SRK	sabarishrkb@gmail.com	29867
303105220	Digital Electronics	DE	Dr. Swati A Sharma	SAS	swati.sharma25834@paruluniversity.ac.in	25834
303105221	Digital Electronics Laboratory	DE LAB	Dr. Swati A Sharma	SAS	swati.sharma25834@paruluniversity.ac.in	25834
303191202	Discrete Mathematics	DM	Dr. PRATIBHA TYAGI	PRT	pratibha.tyagi17542@paruluniversity.ac.in	17542
303193203	Professional Communication Skills(2 TUT)	PCS	MEHUL CHAUHAN	MC	mehulkumar.chauhan24701@paruluniversity.ac.in	24701

CLASSROOM NO:	N-410,502,609,610,205,608,411,611	FACULTY REPRESENTATIVE / MFT	Manisha Chandramaully
LAB/ TUTORIAL LOCATION:	L-411,L-412,L-411,L-410,L-804,L-805,L-313,L-409 (CV RAMAN BUILDING)		manisha.chandramaully29321@paruluniversity.ac.in

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

3B43

PARUL UNIVERSITY						
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY						
INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY						
ACADEMIC YEAR: 2024-25				YEAR: 2nd YEAR		
SEMESTER: 3RD				LEVEL: UG		
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING				DIVISION: CSE_3B44 CSE		EFFECTIVE FROM: 10-06-2024

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	3B44:1: DBMS:AS:L-305 3B44:2:DDS:NHY:L-306	3B44:1: DE:RGG:L-806 3B44:2:OOPJ:SRK:L-807	3B44:PCS:SS:N-501	3B44:1: DDS:NHY:L-804 3B44:2:DE:APG:L-805	LIBRARY/ SELF STUDY	CODE CHEF
10:45 - 11:45			3B44:PCS:SS:N-501		3B44:DM:ANS:N-409	
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	3B44:DE:APG:N-610	3B44:DM:ANS:N-410	3B44:DBMS:AS:N-608	3B44:DDS:NHY: N-611	3B44:OOPJ :SRK:N-502	CODE CHEF
01:35 - 02:25	3B44:DBMS:AS:N-610	3B44:DBMS:AS:N-410	3B44:OOPJ :SRK:N-608	3B44:DDS:NHY: N-611	3B44:DDS:NHY:N-502	
02:25 - 02:45	RECESS TIME: 02:25 - 02:54					
02:45 - 03:45	3B44:1:DDS:NHY :L-309 3B44:2:DBMS:AS:L-310	3B44:DM:ANS:N-410	3B44:1: OOPJ:SRK:L-307 3B44:2:DDS:NHY:L-308	3B44:DE:APG:N-403	LIBRARY/ SELF STUDY	CODE CHEF
03:45 - 04:45		3B44:DE:APG:N-410		3B44:DM:ANS:N-403		

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	NAKUL H Y	NHY	nakul.hy@gmail.com	32913
303105202	Design of Data Structures Laboratory	DDS LAB	NAKUL H Y	NHY	nakul.hy@gmail.com	32913
303105203	Database Management System	DBMS	Arpit Shah AS	AS	arpitkumar.shah10820@paruluniversity.ac.in	10820
303105204	Database Management System Laboratory	DBMS LAB	Arpit Shah AS	AS	arpitkumar.shah10820@paruluniversity.ac.in	10820
			Arpit Shah AS	AS	arpitkumar.shah10820@paruluniversity.ac.in	10820
303105205	Object Oriented Programming with Java	OOPJ	SABARISH RAMESH KUMAR	SRK	sabarishrkb@gmail.com	29867
303105206	Object Oriented Programming with Java Laboratory	OOPJ LAB	SABARISH RAMESH KUMAR	SRK	sabarishrkb@gmail.com	29867
303105220	Digital Electronics	DE	Anuradha P. Gharge	APG	anuradha.gharge@paruluniversity.ac.in	57
303105221	Digital Electronics Laboratory	DE LAB	Dr. Ramji G. Gupta Anuradha P. Gharge	RGG APG	ramji.gupta270086@paruluniversity.ac.in anuradha.gharge@paruluniversity.ac.in	14129 57
303191202	Discrete Mathematics	DM	Arpita Nilay Solanki	ANS	arpita.solanki26540@paruluniversity.ac.in	26540
303193203	Professional Communication Skills(2 TUT)	PCS	SEMI SONI	SS	semi.soni28868@paruluniversity.ac.in	28868

CLASSROOM NO:	N-610,410,608,611,403,502,501	FACULTY REPRESENTATIVE / MFT	Maheshwari H Sagar
LAB/ TUTORIAL LOCATION:	L-309,L-310,L-305,L-306,L-806,L-807,L-804,L-805 (CV RAMAN BUILDING)		maheshwari.sagar29433@paruluniversity.ac.

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

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PARUL UNIVERSITY						
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY						
INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY						
ACADEMIC YEAR: 2024-25					YEAR: 2nd YEAR	
SEMESTER: 3RD					LEVEL: UG	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING					DIVISION: CSE_3B45 CSE	EFFECTIVE FROM: 10-06-2024

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	3B45:1:OOPJ:SRK:L-806 3B45:2:DBMS:VV1:L-807	3B45:DBMS:AS:N-609	3B45:OOPJ :SRK:N-502	3B45:DM:JMP:N-103	3B45:1:DDS:NHY:L-806 3B45:2:OOPJ:SRK:L-807	CODE CHEF
10:45 - 11:45		3B45:DM:JMP:N-609	3B45:OOPJ :SRK:N-502	3B45:DBMS:AS:N-103		
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	LIBRARY/ SELF STUDY	3B45:DE:UVS:N-411	3B45:1:DDS:NHY:L-804 3B45:2:DE:UVS:L-805	3B45:DE:UVS:N-103	3B45:DM:JMP:N-608	CODE CHEF
01:35 - 02:25		3B45:DDS:NHY:N-411		LIBRARY/ SELF STUDY	3B45:DE:UVS: N-608	
02:25 - 02:45	RECESS TIME: 02:25 - 02:54					
02:45 - 03:45	3B45:PCS:SB:N-405	3B45:2:DDS:NHY:L-409 3B45:1:DBMS:VV1:L-410	3B45:DBMS:AS:N-401	3B45:2:DDS:NHY:L-411 3B45:1:DE:UVS:L-412	3B45:DDS:NHY:N-402	CODE CHEF
03:45 - 04:45	3B45:PCS:SB:N-405		3B45:DM:JMP:N-401		3B45:DDS:NHY:N-402	

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	NAKUL H Y	NHY	nakul.hy@gmail.com	32913
303105202	Design of Data Structures Laboratory	DDS LAB	NAKUL H Y	NHY	nakul.hy@gmail.com	32913
303105203	Database Management System	DBMS	Arpit Shah AS	AS	arpitkumar.shah10820@paruluniversity.ac.in	10820
303105204	Database Management System Laboratory	DBMS LAB	DR.VISHWANATH	VV1	vishwanath.33959@paruluniversity.ac.in	33959
			DR.VISHWANATH	VV1	vishwanath.33959@paruluniversity.ac.in	33959
303105205	Object Oriented Programming with Java	OOPJ	SABARISH RAMESH KUMAR	SRK	sabarishrkb@gmail.com	29867
303105206	Object Oriented Programming with Java Laboratory	OOPJ LAB	SABARISH RAMESH KUMAR	SRK	sabarishrkb@gmail.com	29867
303105220	Digital Electronics	DE	Utkarsh V. Shah	UVS	utkarsh.shah@paruluniversity.ac.in	142
303105221	Digital Electronics Laboratory	DE LAB	Utkarsh V. Shah	UVS	utkarsh.shah@paruluniversity.ac.in	142
303191202	Discrete Mathematics	DM	Janki Mukeshkumar Patel	JMP	janki.patel26712@paruluniversity.ac.in	26712
303193203	Professional Communication Skills(2 TUT)	PCS	SANTOSH BHAGAT	SB	santosh.bhagat24268@paruluniversity.ac.in	24268

CLASSROOM NO:	N-405,411,401,103,608,402,609,502	FACULTY REPRESENTATIVE / MFT	Jeenalben Patel
LAB/ TUTORIAL LOCATION:	L-806,L-807,L804,L-805,L-411,L-412 (CV RAMAN BUILDING)		jeenalben.patel30262@paruluniversity.ac.in

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

3B45

PARUL UNIVERSITY
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY
INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY

ACADEMIC YEAR: 2024-25	**YEAR: 2nd YEAR**	
SEMESTER: 3RD	**LEVEL: UG**	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING	**DIVISION: CSE_3B46 CSE**	**EFFECTIVE FROM: 10-06-2024**

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	LIBRARY/ SELF STUDY	3B46:DE:HNP:N-610	3B46:1:OOPJ:PR:L-804 3B46:2:DBMS:RJ:L-805	3B46:DBMS:RJ:N-104	3B46:DDS:MR:N-411	CODE CHEF
10:45 - 11:45		LIBRARY		3B46:DM:RMR:N-104	3B46:DE:HNP:N-411	
11:45 - 12:45	**RECESS TIME: 11:45 - 12:45**					
12:45 - 01:35	3B46:OOPJ:PR:N-611	3B46:PCS:DG:N-501	3B46:DBMS:RJ:N-609	3B46:DE:HNP:N-104	3B46:1:DDS:MR:L-806 3B46:2:OOPJ:PR:L-807	CODE CHEF
01:35 - 02:25	3B46:OOPJ:PR:N-611	3B46:PCS:DG:N-501	3B46:DM:RMR:N-609	3B46:DM:RMR:N-104		
02:25 - 02:45	**RECESS TIME: 02:25 - 02:54**					
02:45 - 03:45	3B46:2:DDS:MR :L-409 3B46:1:DBMS:RJ:L-313	3B46:1:DDS:MR:L-307 3B46:2:DE:HNP:L-308	3B46:DDS:MR:N-402	3B46:2:DDS:MR:L-309 3B46:1:DE:HNP:L-310	3B46:DM:RMR:N-403	CODE CHEF
03:45 - 04:45			3B46:DDS:MR:N-402		3B46:DBMS:RJ:N-403	

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	MITRAVINDA R	MR	resojumitravinda@gmail.com	33063
303105202	Design of Data Structures Laboratory	DDS LAB	MITRAVINDA R	MR	resojumitravinda@gmail.com	33063
303105203	Database Management System	DBMS	RITU JAIN (RJ)	RJ	ritu.jain30573@paruluniversity.ac.in	30573
303105204	Database Management System Laboratory	DBMS LAB	RITU JAIN (RJ)	RJ	ritu.jain30573@paruluniversity.ac.in	30573
			RITU JAIN (RJ)	RJ	ritu.jain30573@paruluniversity.ac.in	30573
303105205	Object Oriented Programming with Java	OOPJ	PRATHIBA R	PR	prathiba.r96@gmail.com	29852
303105206	Object Oriented Programming with Java	OOPJ LAB	PRATHIBA R	PR	prathiba.r96@gmail.com	29852
303105220	Digital Electronics	DE	Hardik N. Patel	HNP	hardik.patel21577@paruluniversity.ac.in	21577
303105221	Digital Electronics Laboratory	DE LAB	Hardik N. Patel	HNP	hardik.patel21577@paruluniversity.ac.in	21577
303191202	Discrete Mathematics	DM	Raj M Raval	RMR	raj.raval30813@paruluniversity.ac.in	30813
303193203	Professional Communication Skills(2 TUT)	PCS	DISHA GANGULI	DG	disha.ganguli33589@paruluniversity.ac.in	33589

CLASSROOM NO:	N-611,501,609,104,403,104,411	**FACULTY REPRESENTATIVE / MFT**	Ritu Jain
LAB/ TUTORIAL LOCATION:	L-409,L-313,L-307,L-308,L-804,L-805,L-806,L-807,L-309,L-310 (CV RAMAN BUILDING)		ritu.jain30573@paruluniversity.ac.in

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

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PARUL UNIVERSITY						
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY						
INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY						
ACADEMIC YEAR: 2024-25					YEAR: 2nd YEAR	
SEMESTER: 3RD					LEVEL: UG	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING					DIVISION: CSE_3B47 CSE	EFFECTIVE FROM: 10-06-2024

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	3B47:DBMS:RJ:N-609	3B47:PCS:GK:N-611	LIBRARY/ SELF STUDY	3B47:1:DDS:DV:L-411 3B47:2:DE:RGG:L-807	3B47:DBMS:RJ:N-501	CODE CHEF
10:45 - 11:45	3B47:OOPJ:DN:N-609	3B47:PCS:GK:N-611			3B47:DDS:DV:N-501	
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	3B47:2:DDS:DV:L-411 3B47:1:DBMS:RJ:L-806	3B47:DDS:DV:N-502	3B47:1:DDS:YS:L-806 3B47:2:OOPJ:BNM:L-807	LIBRARY/ SELF STUDY	3B47:DE:MMP: N-609	CODE CHEF
01:35 - 02:25		3B47:OOPJ:DN:N-502		3B47:DDS:DV:N-407	3B47:DM:RMR:N-609	
02:25 - 02:45	RECESS TIME: 02:25 - 02:54					
02:45 - 03:45	3B47:DE:MMP:N-406	3B47:1:OOPJ:BNM:L-411 3B47:2:DBMS:SPM:L-412	3B47:DE:MMP:N-403	3B47:DM:RMR:N-404	3B47:2:DDS:DV:L-411 3B47:1:DE:MMP:L-410	CODE CHEF
03:45 - 04:45	3B47:DM:RMR:N-406		3B47:DBMS:RJ:N-403	3B47:DM:RMR:N-404		

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	Dr. Daxa Vekariya	DV	daxa.vekariya18436@paruluniversity.ac.in	18436
303105202	Design of Data Structures Laboratory	DDS LAB	Dr. Daxa Vekariya	DV	daxa.vekariya18436@paruluniversity.ac.in	18436
			YATINKUMAR V. SHUKLA	YS	yatinkumar.shukla18611@paruluniversity.ac.in	18611
303105203	Database Management System	DBMS	RITU JAIN (RJ)	RJ	ritu.jain30573@paruluniversity.ac.in	30573
303105204	Database Management System Laboratory	DBMS LAB	RITU JAIN (RJ)	RJ	ritu.jain30573@paruluniversity.ac.in	30573
			SACHIN SIR (SPM)	SMP	sachin.malviya29016@paruluniversity.ac.in	29016
303105205	Object Oriented Programming with Java	OOPJ	Dhaval Nimavat	DN	dhaval.nimavat26730@paruluniversity.ac.in	26730
303105206	Object Oriented Programming with Java Laboratory	OOPJ LAB	Binisa Makwana	BNM	binisaben.makwana31526@paruluniversity.ac.in	31526
			Binisa Makwana	BNM	binisaben.makwana31526@paruluniversity.ac.in	31526
303105220	Digital Electronics	DE	Dr. Mitul M. Patel	MMP	mitul.patel@paruluniversity.ac.in	136
303105221	Digital Electronics Laboratory	DE LAB	Dr. Mitul M. Patel	MMP	mitul.patel@paruluniversity.ac.in	136
			Dr. Ramji G. Gupta	RGG	ramji.gupta270086@paruluniversity.ac.in	14129
303191202	Discrete Mathematics	DM	Raj M Raval	RMR	raj.raval30813@paruluniversity.ac.in	30813
303193203	Professional Communication Skills(2 TUT)	PCS	GAURAV CHAUDHRI	GK	GAURAV.CHAUDHARI183@PARULUNIVE RSITY.AC.IN	31183

CLASSROOM NO:	N-609,406,403,404,407,502,501,611	FACULTY REPRESENTATIVE / MFT	Anil Patel
LAB/ TUTORIAL LOCATION:	L-806,L-807,L-411,L-412,L-410 (CV RAMAN BUILDING)		anilkumar.patel2986@paruluniversity.ac.i

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

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PARUL UNIVERSITY FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY						
ACADEMIC YEAR: 2024-25					YEAR: 2nd YEAR	
SEMESTER: 3RD					LEVEL: UG	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING					DIVISION: CSE_3B48 CSE	EFFECTIVE FROM: 10-06-2024
EFFECTIVE FROM: 10-06-2024						
TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	3B48:OOPJ:BNM:N-610	3B48:OOPJ:BNM:N-103	3B48:DE:ZAS:N-608	CODE CHEF	3B48:DE:ZAS:N-502	3B48:PCS:MG:N-610
10:45 - 11:45	LIBRARY/ SELF STUDY	3B48:DBMS:AM:N-103	3B48:DBMS:AM:N-608		3B48:DDS:CT:N-502	3B48:PCS:MG:N-610
11:45 - 12:45	RECESS TIME: 11:45 - 12:45					
12:45 - 01:35	LIBRARY/ SELF STUDY	3B48:1:DDS:CT:L-806 3B48:2:OOPJ:BNM:L-807	3B48:DBMS:AM:N-610	CODE CHEF	3B48:1:OOPJ:BNM:L-806 3B48:2:DBMS:AM:L-807	3B48:DDS:CT:N-610
01:35 - 02:25			3B48:DM:JAS:N-610			3B48:DE:ZAS:N-610
02:25 - 02:45	RECESS TIME: 02:25 - 02:54					
02:45 - 03:45	3B48:1:DDS:CT:L-802 3B48:2:DE:ZAS:L-803	3B48:DDS:CT:N-402	3B48:2:DDS:CT:L-412 3B48:1:DBMS:AM:L-413	CODE CHEF	3B48:2:DDS:CT:L-412 3B48:1:DE:ZAS:L-413	3B48:DM:JAS:N-610
03:45 - 04:45		3B48:DM:JAS:N-402				3B48:DM:JAS:N-610

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
SUBJECT_CODE	Design of Data Structures	DDS	DR.CHINTAN THACKER	CT	CHINTAN.THACKER19435@paruluniversity.ac.in	19435
303105201	Design of Data Structures Laboratory	DDS LAB	DR.CHINTAN THACKER	CT	CHINTAN.THACKER19435@paruluniversity.ac.in	19435
303105202			DR.CHINTAN THACKER	CT	CHINTAN.THACKER19435@paruluniversity.ac.in	19435
303105203	Database Management System	DBMS	ANUSHA MARADA AM	AM	Anusha.marada31882@paruluniversity.ac.in	31882
303105204	Database Management System Laboratory	DBMS LAB	ANUSHA MARADA AM	AM	Anusha.marada31882@paruluniversity.ac.in	31882
			ANUSHA MARADA AM	AM	Anusha.marada31882@paruluniversity.ac.in	31882
303105205	Object Oriented Programming with Java	OOPJ	Binisa Makwana	BNM	binisaben.makwana31526@paruluniversity.ac.in	31526
303105206	Object Oriented Programming with Java Laboratory	OOPJ LAB	Binisa Makwana	BNM	binisaben.makwana31526@paruluniversity.ac.in	31526
			Binisa Makwana	BNM	binisaben.makwana31526@paruluniversity.ac.in	31526
303105220	Digital Electronics	DE	Dr. Zen Alabdeen Sbeah	ZAS	zen.sbeah33150@paruluniversity.ac.in	33150
303105221	Digital Electronics Laboratory	DE LAB	Dr. Zen Alabdeen Sbeah	ZAS	zen.sbeah33150@paruluniversity.ac.in	33150
303191202	Discrete Mathematics	DM	Jaydeep Sharma	JAS	jaydeepkumar.sharma29910@paruluniversity.ac.in	29910
303193203	Professional Communication Skills(2 TUT)	PCS	MAHIRPARI GOSWAMI	MG	mahirpari.goswami24608@paruluniversity.ac.in	24608

CLASSROOM NO:	N-610,402,502,103,608	FACULTY REPRESENTATIVE / MFT	Yatin Shukla
LAB/ TUTORIAL LOCATION:	L-802,803,L-806,L-807,L-412,L-413 (CV RAMAN BUILDING)		yatinkumar.shukla18611@paruluniversity.ac.in

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

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PARUL UNIVERSITY		
FACULTY NAME: FACULTY OF ENGINEERING & TECHNOLOGY		
INSTITUTE NAME: PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY		
ACADEMIC YEAR: 2024-25	YEAR: 2nd YEAR	
SEMESTER: 3RD	LEVEL: UG	
PROGRAM NAME: B.TECH COMPUTER SCIENCE ENGINEERING	DIVISION: CSE_3B49 CSE	EFFECTIVE FROM: 10-06-2024

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
09:45 - 10:45	LIBRARY/ SELF STUDY	LIBRARY/ SELF STUDY	3B49:1:OOPJ:KKB:L-404 3B49:2:DBMS:VV1:L-405	3B49:DDS:YS:N-105	3B49:2:DDS:YS:L-404 3B49:1:DBMS:AM:L-405	CODE CHEF
10:45 - 11:45	3B49:DDS:YS:N-610			3B49:DBMS:AM:N-105		
11:45 - 12:45	**RECESS TIME: 11:45 - 12:45**					
12:45 - 01:35	3B49:DBMS:AM:N-104	3B49:DDS:YS:N-608	3B49:PCS:AR:N-611	3B49:DE:KUC:N-105	3B49:DE:KUC:N-610	CODE CHEF
01:35 - 02:25	3B49:OOPJ:KKB:N-104	3B49:DM:TSS:N-608	3B49:PCS:AR:N-611	3B49:DM:TSS:N-105	3B49:DM:TSS:N-610	
02:25 - 02:45	**RECESS TIME: 02:25 - 02:54**					
02:45 - 03:45	3B49:1:DDS:YS:L-307 3B49:2:OOPJ:KKB:L-308	3B49:1:DDS:YS:L-303 3B49:2:DE:KUC:L-304	3B49:DE:KUC:N-404	3B49:2:DDS:YS:L-305 3B49:1:DE:KUC:L-306	3B49:OOPJ:KKB:N-404	CODE CHEF
03:45 - 04:45			3B49:DM:TSS:N-404		3B49:DBMS:AM:N-404	

SUBJECT_CODE	SUBJECT_NAME	SHORT_NAME	FACULTY FULL_NAME	FACULTY SHORT NAME	EMAIL ID	MIS ID
303105201	Design of Data Structures	DDS	YATINKUMAR V. SHUKLA	YS	yatinkumar.shukla18611@paruluniversity.ac.in	18611
303105202	Design of Data Structures Laboratory	DDS LAB	YATINKUMAR V. SHUKLA	YS	yatinkumar.shukla18611@paruluniversity.ac.in	18611
			YATINKUMAR V. SHUKLA	YS	yatinkumar.shukla18611@paruluniversity.ac.in	18611
303105203	Database Management System	DBMS	ANUSHA MARADA AM	AM	Anusha.marada31882@paruluniversity.ac.in	31882
303105204	Database Management System Laboratory	DBMS LAB	ANUSHA MARADA AM	AM	Anusha.marada31882@paruluniversity.ac.in	31882
			DR.VISHWANATH	VV1	vishwanath.33959@paruluniversity.ac.in	33959
303105205	Object Oriented Programming with Java	OOPJ	komal krunal bonde	KKB	komal.bonde32617@paruluniversity.ac.in	32617
303105206	Object Oriented Programming with Java Laboratory	OOPJ LAB	komal krunal bonde	KKB	komal.bonde32617@paruluniversity.ac.in	32617
			komal krunal bonde	KKB	komal.bonde32617@paruluniversity.ac.in	32617
303105220	Digital Electronics	DE	Keyur U. Chauhan	KUC	keyursinh.chauhan32987@paruluniversity.ac.in	32987
303105221	Digital Electronics Laboratory	DE LAB	Keyur U. Chauhan	KUC	keyursinh.chauhan32987@paruluniversity.ac.in	32987
303191202	Discrete Mathematics	DM	Tulsi Sheth	TSS	tulsi.sheth12727@paruluniversity.ac.in	13737
303193203	Professional Communication Skills(2 TUT)	PCS	ARVIND ROHIT	AR	arvindbhai.rohit20036@paruluniversity.ac.in	20036

CLASSROOM NO:	N-610,104,608,611,105,404	FACULTY REPRESENTATIVE / MFT	Vishal Chauhan
LAB/ TUTORIAL LOCATION:	L-307,L-307,8,L-303,L-304,L-305,L-306,L-404,L-405 (CV RAMAN BUILDING)		vishal.chauhan30277@paruluniversity.ac.in

SIGN	SIGN & SEAL	SIGN & SEAL
DR. Daxa Vekariya	Dr. Amit Barve	Dr. Vipul Vekariya
Time Table Coordinator	Head of Department	Principal / Dean

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LIST OF HOLIDAYS

PARUL UNIVERSITY

Office of the Registrar
December 6, 2023

R/Circular-863/2023-24

CIRCULAR

Sub: List of Holidays for the Calendar Year-2024
Ref: Orders of the President

The following is the list of General Holidays for the year 2024.

Sr.No.	Name of Public Holiday	Date	Day
1	Vaasi Uttarayan	January 15, 2024	Monday
2	Republic Day	January 26, 2024	Friday
3	Maha Shivratri (Maha Vad 13)	March 08, 2024	Friday
4	Holi 2nd Day-Dhuleti	March 25, 2024	Monday
5	Ramjan-Eid (Eid-Ul-Fitra)	April 11, 2024	Thursday
6	Shree Ram Navmi	April 17, 2024	Wednesday
7	Independence Day / Parsi New Year Day-Pateti	August 15, 2024	Thursday
8	Raksha Bandhan	August 19, 2024	Monday
9	Janmashtami (Shravan Vad-28)	August 26, 2024	Monday
10	Samvatsari (Chaturthi Paksha)/ Ganesh Chaturthi	September 7, 2024	Saturday
11	Mahatma Gandhi's Birthday	October 2, 2024	Wednesday
12	Dusshera (Vijaya Dashmi)	October 12, 2024	Saturday
13	Diwali /Sardar Vallabhbhai Patel's Birthday	October 31, 2024	Thursday
14	Vikram Samvant New Year Day	November 2, 2024	Saturday
15	Christmas	December 25, 2024	Wednesday

Weekly / Mid Semester / Exam Schedule or Information

Weekly Exam Dates	Weekly Exam
29/06/24	Weekly - 1
06-07-24	Weekly - 2
13/07/24	Weekly - 3
20/07/24	Weekly - 4
27/07/24	Weekly - 5
03-08-24	Weekly - 6

Exam	Dates
Mid Exam	05/08/24 to 10/08/24
Term work submission	07/10/24 to 11/10/24
Practical exam	21/10/24 to 26/10/24
External Sem Exam	11/11/24 to 23/11/24

MFT DETAILS

Sr. no	Name of MFT	Designation	Mobile number	Email id
3B38	Bhagyesha Pandhi	Asst. Prof	8238056959	bhagyesha.pandhi24831@paruluniversity.ac.in
3B39	Edawanbiang Dhar	Asst. Prof	9366657489	edawanbiang.dhar29682@paruluniversity.ac.in
3B40	Priyanka Mehta	Asst. Prof	9016478336	priyanka.mehta21539@paruluniversity.ac.in
3B41	Hiral Vyas	Asst. Prof	9408804323	hiral.vyas30738@paruluniversity.ac.in
3B42	Maradiya Miral	LECTURER	9664916618	miralben.maradiya29300@paruluniversity.ac.in
3B43	Manisha Chandramaully	LECTURER	8160450748	manisha.chandramaully29321@paruluniversity.ac.in
3B44	Maheshwari H Sagar	LECTURER	7227845422	maheshwari.sagar29433@paruluniversity.ac.in
3B45	Jeenalben Patel	Asst. Prof	9687685278 / 9429556278	jeenalben.patel30262@paruluniversity.ac.in
3B46	Ritu Jain	Asst. Prof	9998698661	ritu.jain30573@paruluniversity.ac.in
3B47	Anil Patel	Asst. Prof	9426890330	anilkumar.patel2986@paruluniversity.ac.in
3B48	Yatin Shukla	Asst. Prof	9979007623	yatinkumar.shukla18611@paruluniversity.ac.in
3B49	Vishal Chauhan	Asst. Prof	9998828474	vishal.chauhan30277@paruluniversity.ac.in

Concerned Faculty List with Contact Detail

Sr	Name of Faculty	Subject	Mobile
1	Yatinkumar Shukla	Design of Data Structures	9979007623
	Dr. Dhanraj Verma		9755301831
2	Vishwanath	Database Management System	8561050543
3	Tejas Rana	Object Oriented Programming with Java	8000576417
	Komal Krunal Bonde		8097100095
4	Shushmita Mishra	Digital Electronics	8280635230
5	Disha Ganguli	Professional Communication Skills	7980071233
	Monika naik /Bhumika Makwana	Discrete Mathematics	9712935143/ 9737912998

Semester - 3

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	**Subject**	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303105201	Design of Data Structures	3.00	3	0	0	20	-	20	60	-	40	-	100
303105202	Design of Data Structures Laboratory	2.00	0	4	0	-	20	-	-	30	-	25	50
303105203	Database Management System	3.00	3	0	0	20	-	20	60	-	40	-	100
303105204	Database Management System Laboratory	1.00	0	2	0	-	20	-	-	30	-	25	50
303105205	Object Oriented Programming with JAVA	2.00	2	0	0	20	-	20	60	-	40	-	100
303105206	Object Oriented Programming with JAVA Laboratory	1.00	0	2	0	-	20	-	-	30	-	25	50
303105220	Digital Electronics	3.00	3	0	0	20	-	20	60	-	40	-	100
303105221	Digital Electronics Laboratory	1.00	0	2	0	-	20	-	-	30	-	25	50
303191202	Discrete Mathematics	4.00	4	-	-	20	-	20	60	-	40	-	100
303193203	Professional Communication Skills	2.00	-	-	2	-	-	100	-	-	40	-	100
	Total	22.00	15	10	2								800

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

eory Passing % : 40 **Practical Passing % :** 50

303105201 - Design of Data Structures

Course	Bachelor of Technology (BTech)	**Semester - 3**
Type of Course	-	
Prerequisite	Computer Programming and Basic Syntaxes	
Course Objective	Data structure is a subject of primary importance in Information and Communication Technology. Organizing or structuring data is important for implementation of efficient algorithms and program development. Efficient problem solving needs the application of appropriate data structure during program development.	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	External Marks	Internal Marks	External Marks	Internal Marks	Total Marks
3	0	0	3.00	60	20	-	-	100

***SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

Course Content **T** - Teaching Hours | **W** – Weightage

Sr.	Topics	T	W
1	**Introduction:** Data Structures, Classifications (Primitive & Non-Primitive), Data structure Operations, Review of Arrays, Structures, Self-Referential Structures, and Unions. Pointers and Dynamic Memory Allocation Functions. Representation of Linear Arrays in Memory, dynamically allocated arrays. Performance analysis of an algorithm and space and time complexities	6	10
2	**Stacks, Recursion and Queue:** **Stacks:** Definition, Stack Operations, Array Representation of Stacks, Stacks using Dynamic Arrays, Stack Applications: Polish notation, Infix to postfix conversion, evaluation of postfix expression. **Recursion -**Factorial, GCD, Fibonacci Sequence, Tower of Hanoi, **Queues:** Definition, Array Representation, Queue Operations, Circular Queues, Circular queues using Dynamic arrays, Deque, Priority Queues and its problems	8	15
3	**Linked Lists:** Definition, Representation of linked lists in Memory, Memory allocation; Garbage Collection. Linked list operations: Traversing, Searching, Insertion, and Deletion. Doubly Linked lists, Circular linked lists, and header linked lists. Linked Stacks and Queues. Applications of Linked lists	5	10
4	**Searching and Sorting:** Interpolation Search **Sorts:** Selection Sort Insertion Sort Bubble Sort Quick Sort Merge Sort, Radix Sort	5	10
5	**Trees :** Terminology, Binary Trees, Properties of Binary trees, Array and linked Representation of Binary Trees, Binary Tree Traversals - In Order, Post Order, Pre Order; Additional Binary tree operations. Threaded binary trees, Binary Search Trees – Definition, Insertion, Deletion, Traversal, Searching, Application of Trees-Evaluation of Expression	4	10

Course Content **T** - Teaching Hours | **W** – Weightage

Sr.	Topics	T	W
6	**Red Black Trees and AVL Trees:** Introduction-Operations on Red Black Trees AVL tree Construction Operations on AVL Trees	8	15
7	**Hashing:** Hash Table organizations, Hashing Functions, Static and Dynamic Hashing	3	15
8	**Graphs:** Definitions, Terminologies, Matrix and Adjacency List Representation of Graphs, Elementary Graph operations, Traversal methods: Breadth First Search and Depth First Search.	5	15
Total		**44**	**100**

Course Outcomes

At the end of this course, students will be able to:	
CO1	Understand the concept of Dynamic memory management, data types, algorithms, Big O notation
CO2	Understand basic data structures such as arrays, linked lists, stacks and queues
CO3	Describe the hash function and concepts of collision and its resolution methods
CO4	Solve problem involving graphs, trees and heaps
CO5	Apply Algorithm for solving problems like sorting, searching, insertion and deletion of data

Reference Books

1.	**Fundamentals of Data Structures in C, 2ND eDITION, E.Horowitz, S,.Sahni and Susan Anderson- Freed, Universities Press (TextBook)**
2.	**Seymour Lipschutz, Data Structures Schaum's Outlines, Revised 1st Ed, McGraw Hill, 2014.**

303105202 - Design of Data Structures Laboratory

Course	Bachelor of Technology (BTech)	**Semester – 3**
Type of Course	-	
Prerequisite	Basic knowledge of Data Structures	
Course Objective	This course provides a broad introduction to Data Structures The various Data structures and its analysis of working design and development.	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	External Marks	Internal Marks	External Marks	Internal Marks	Total Marks
0	0	4	2.00	-	-	30	20	50

***SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

List of Practical	
1.	**Implement Stack and its operations like (creation push pop traverse peek search) using linear data structure**
2.	**Implement Infix to Postfix Expression Conversion using Stack**
3.	**Implement Postfix evaluation using Stack.**
4.	**Implement Towers of Hanoi using Stack.**
5.	**Implement queue and its operations like enqueue, dequeue, traverse, search.**
6.	**Implement Single Linked lists and its operations(creation insertion deletion traversal search reverse)**
7.	**Implement Double Linked lists and its operations(creation insertion deletion traversal search reverse)**
8.	**Implement binary search and interpolation search.**
9.	**Implement Bubble sort, selection sort, Insertion sort, quick sort ,merge sort.**
10.	**Implement Binary search Tree and its operations (creation, insertion, deletion).**
11.	**Implement Traversals Preorder Inorder Postorder on BST.**
12.	**Implement Graphs and represent using adjaceny list and adjacency matrix and implement basic operations with traversals (BFS and DFS).**

303105203 - Database Management System

Course	Bachelor of Technology (BTech)	**Semester – 3**
Type of Course	-	
Prerequisite	Basic Computer Knowledge	
Course Objective	The course will enable students to understand the different issues involved in the design and implementation of a database system as well execute various database queries using SQL.	

Teaching Scheme (Contact Hours)				**Examination Scheme**				
				Theory Marks		**Practical Marks**		
Lecture	**Tutorial**	**Lab**	**Credit**	**External Marks**	**Internal Marks**	**External Marks**	**Internal Marks**	**Total Marks**
3	0	0	3.00	60	20	-	-	100

***SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

Course Content **T** - Teaching Hours | **W** – Weightage

Sr.	**Topics**	**T**	**W**
1	**Introduction:** Introduction and applications of DBMS, File Processing System and its limitations, ANSI/SPARC Model, Data Independence, Client-Server Architecture, Users & DBA, Database Architecture.	**3**	**10**
2	**SQL:** Data Definition Language (DDL) commands, Data Manipulation Language (DML) commands, Data Control Language (DCL) commands, Transaction Control Language (TCL) commands. **Predicates & Clauses:** Logical Operators (AND / OR), Relational Operators, BETWEEN Predicate, IN & NOT IN Predicate, LIKE Predicate. **Functions in SQL**: Aggregate Functions, Character Functions, Arithmetic Functions, Date Functions, Conversion Functions.	**4**	**10**
3	**Data Models:** Hierarchical Model, Network Model, Relational Model, Object Oriented Model. **E-R Diagram:** Introduction to E-R Diagram, Entities, Attributes & its types, Relationships, Mapping Cardinalities, Participation Constraints, Weak Entity Sets, Specialization, Generalization, Aggregation.	**5**	**10**
4	**Relational Data Model:** **Relational Data Model:** Introduction, Degree, Cardinality. **Constraints & Keys:** Primary Key, Foreign Key, Super Key, Candidate Key, Not Null Constraint, Check Constraint. **Relational Algebra Operations:** Selection, Projection, Cross-Product, Rename, Joins (Natural & Outer Join), Set Operators (Union, Intersection, Set Difference), Aggregate Functions.	**4**	**10**
5	**Relational Database Design:** Functional Dependency – definition, trivial and non-trivial FD, Armstrong's Axioms/Inference Rules, Closure of FD, Closure of Attributes, Candidate Key, Finding a Candidate Key, Decomposition (Lossy & Lossless), Database Anomalies, Normalization – 1Nf, 2NF, 3NF, BCNF, 4NF, 5NF	**6**	**20**

Course Content	**T** - Teaching Hours | **W** – Weightage		
Sr.	**Topics**	**T**	**W**
6	**Transaction:** **Transaction:** Introduction, ACID Properties, Transaction Life Cycle, Scheduling, Serial Schedule, Interleaved Schedule, Transaction Operations, Serializability (View & Conflict), Two-Phase Commit Protocol. **Database Recovery:** Introduction, Log Based Recovery, Shadow Paging, Checkpoints. **Concurrency Control:** Introduction, Lock Based Protocol, Two Phase Lock Protocol, Intention Locking, Multiple Granularity, Time-based Protocol. **Deadlock:** Introduction, Deadlock Detection, Deadlock Recovery, Deadlock Prevention (Wait-Die, Wound-Wait & Timeout-Based Approach).	**12**	**20**
7	**Query Processing:** **Query Processing:** Introduction, Layers of Query Processing, Measures of Query Cost, File Scans (Linear & Binary Search), Materialized View, Pipelining. **Query Optimization:** Introduction, Equivalence Rules, Cost-Based Query Optimization.	**3**	**10**
8	**Security:** **Security:** Data Security, Data Integrity, Authentication, Authorization, Encryption, Decryption, Access Control (DAC, RBAC, MAC), Intrusion Detection, SQL Injection	**2**	**5**
9	**PL/SQL Concepts:** Views, PL/SQL Block, Cursors, Triggers, Stored Procedures, Store Functions	**3**	**5**
Total		**42**	**100**

Reference Books	
1.	**Database System Concepts (TextBook)** Abraham Silberschatz, Henry Korth, S. Sudarshan; McGraw Hill International; 6th Edition
2.	**An Introduction to Database Systems** C. J. Date, A. Kannan, S. Swamynathan; Pearson Education; 8th Edition
3.	**SQL, PL/SQL – The Programming Language** Ivan Bayross; BPB Publications

303105204 - Database Management System Laboratory

Course	Bachelor of Technology (BTech)	**Semester – 3**
Type of Course	-	
Prerequisite	Basic Computer Knowledge	
Course Objective	The course will enable students to understand the different issues involved in the design and implementation of a database system as well execute various database queries using SQL.	

Teaching Scheme (Contact Hours)				**Examination Scheme**				
				Theory Marks		**Practical Marks**		
Lecture	**Tutorial**	**Lab**	**Credit**	**External Marks**	**Internal Marks**	**External Marks**	**Internal Marks**	**Total Marks**
0	0	2	1.00	-	-	30	20	50

***SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

List of Practical

1.

1. What is DBMS? Explain advantages of DBMS over FPS.
2. List 15 applications of Database.Explain any 2 how Database can be helpful in managing that application?
3. Create the Database for the following:

    1. Student Details using Excel.
    2. Employees Details using MS Access
    3. Facebook using Excel

2.

Create following Tables:

- Use **varchar2(30)** datatype for **Alphanumeric Characters and Special Symbols, number** datatype for **Numbers, date datatype for Date.**
- **Insert proper data (Capital and Small Case) as mentioned in this file.**
- **Employee**
- **Emp_name Street City** Adam Spring Pittsfield Brooks Senator Brooklyn Curry North Rye Demalo SunShine San Deago

3.	**Simple Queries:** 1. Describe deposit, branch. 2. Describe borrow, customers. 3. List all data from table DEPOSIT. 4. List all data from table BORROW. 5. List all data from table CUSTOMERS. 6. List all data from table BRANCH. 7. Give account no and amount of depositors. 8. List all data from SAILORS. 9. List Boat Name and its color. 10. List Employee name and its city. 11. List all the details of Clients. 12. Describe various products and its price. 13. Describe sailor's name, age and its rating. 14. Describe the managers of various employees 15. Describe the details of Loan for customers. 16. Describe the date of travel of various sailors.
4.	**Simple Queries:** (1) Give name of depositors having amount greater than 4000. (2) List the employees having salary less than 22000. (3) List the sailors having age more than 25. (4) List the boats travelling on 10-oct-98 (5) List the details of boat "Interlake". (6) List the details of the red colored boat. (7) List the details of clients whose city is Mumbai (8) List Client Name, due balance and city of the clients having balance greater than 1500. (9) Describe the details of products having selling price less than 500. (10) List the products for which quantity ordered is less than 120 and cost price is greater than 250. (11) Display account details having amount greater 2200. (12) Display all the customers staying in Nagpur (13) Display the names of sailors having rating greater than 7 (14) Display the orders made in the month of June (15) List all the accounts created in the month of March
5.	**"Like" Queries:** 1. Display all customers whose name start with 'M'. 2. Display all the customers whose name ends with 'L'. 3. Display all loan details whose branch starts with 'A'. 4. Display the details of sailors whose name is minimum 6 characters long. 5. Display the details of Employees whose address starts with 'S'. 6. List the details of the boat ending with 'e'. 7. List the details of clients having 'h' as a 3rd character in his/her name. 8. List Client Name, due balance and city whose pin code starts with 4. 9. List all customers whose city contains 'a' as second character. 10. List client names and city whose state has 'a' as fourth or fifth character.
6.	**"Aggregate Functions & DML" Queries:** 1. List total deposit from deposit.. 2. Give Maximum loan given to a customer. 3. Describe the average age of all the sailors. 4. Count total number of customers 5. Count total number of customer's cities. 6. Display total target for the salesman. 7. Update the salary of the employee having 10000 to 11500 8. Update the city of client from Bangalore to Bengaluru.

	9. Give the 15% hike in the salary of all the Employees. Rename that column to "New Salary". 10. Increase the sell price of all products by 20% and label new column as "New Sell Price". (Do not update the table) 11. Provide the count of customers staying in "Bombay"
7.	**"Join" Queries:** 1. Find the salary of Adam. 2. Find the city where Brooks work. 3. Display the sailor's details whose boat is booked for 9th May, 98. 4. Display the day of ride and sailor name for boat 103. 5. Display the sailor name and its age for Red colored and 101 boat. 6. Display the sailor details whose boat is never booked. 7. Display the sailor name that has Red or Green Boat. 8. Display all sailor details and boat details and who has Interlake boat. 9. Display sailor's rating with boat details or the trip on 10th October, 98. 10. Display the sailor id and name whose age is more than 42 or who has Blue colored boat. 11. Display name and rating of sailor whose boat name is Clipper. 12. List products whose selling price is more than 500 and less than equal to 750. 13. Describe the second highest salary of an employee. 14. Display the date of travel and sailor's name whose age is between 35 and 65. 15. List all the employees working for "FBC".
8.	**"Join" Queries:** 1. Display all the employee name and the city where they work. 2. Display the employee name and company's name having salary more than 15000. 3. Find the average rating and age of all sailors. 4. List various products available. 5. Display the names of salesman who have salary more than 2850. 6. Change the cost price of Trousers to 950 7. List all the clients having "a" as a second character in their names. 8. List all the products whose QtyonHand is less than Reorderlvl. 9. Print the description and total qty sold for each product. 10. Find out all the products which have been sold to "Ivan Bayross". 11. Find the names of all clients who have purchased Trousers. 12. Find the products and their quantities for the orders placed by client C00001 and C00002. 13. List the client details who place order no. O19001. 14. List the name of clients who have placed orders worth Rs. 10000 or more. 15. Find the total of Qty ordered for each Order.
9.	**"Miscellaneous" Queries:** 1. Find the average rate for each Order. 2. Give the loan details of all the customers. 3. List the customer name having loan account in the same branch city they live in. 4. Provide the loan details of all the customers who have opened their accounts after August'95. 5. List the order information for client C00001 and C00002. 6. List all the information for the order placed in the month of june. 7. List the details of clients who do not stay in Maharashtra. 8. Determine the maximum and minimum product price. Rename the output as "Max_Price" and "Min_Price". 9. Count the number of products having price less than or equal to 500. 10. List the order number and the day on which client placed an order. 11. List the month and the date on which an order is to be delivered. 12. List the date, 25 days after today's date. 13. Find the total of all the billed orders in the month of June. 14. List the products and orders from customers who have ordered less than 5 units of "Pull Overs". 15. Find the list of products and orders placed by "Ivan Bayrosss" and "Mamta Muzumdar". 16. List the clients who placed order before June'04. 17. List all the clients who stays in "Bengaluru" or "Mangalore".

10.	**PL/SQL Block:** 1. Write a PL/SQL Block to Add 2 Numbers 2. Write a PL/SQL Block to find Area of Rectangle, Triangle and Square. 3. Write a PL/SQL Block to find Maximum of 3 numbers 4. Write a PL/SQL Block to print sum of N Numbers using For Loop. 5. Write a PL/SQL Block to generate Fibonacci series of N numbers

303105205 - Object Oriented Programming with JAVA

Course	Bachelor of Technology (BTech)	**Semester – 3**
Type of Course	-	
Prerequisite	Basic knowledge of software applications	
Course Objective	This course provides a broad introduction to software engineering. The various process models required to develop software is also being described. Moreover the functional and non-functional requirements are also described.	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	External Marks	Internal Marks	External Marks	Internal Marks	Total Marks
2	0	0	2.00	60	20	-	-	100

***SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

Course Content **T** - Teaching Hours | **W** – Weightage

Sr.	Topics	T	W
1	**Design introduction:** Object-oriented programming, oops principles, encapsulation, inheritance and polymorphism java as a oops & internet enabled language, importance of java, java usage in industry, the byte code, compiling, and running of simple java program, jvm, jdk, jre	4	8
2	**Data types, variable, operators:** Data types, variables, dynamic initialization, scope and lifetime of variables, type conversion and casting, operators	4	10
3	**Control statements:** Conditional Statements, Looping Statements, Jump Statements	5	10
4	**Arrays:** Array, Array values and memory storage Structure, Types of Arrays.	4	8
5	**Object oriented programming:** Classes and objects: concepts of classes and objects, declaring objects, assigning object reference variables, methods, constructors, access control, garbage collection, usage of static with data and methods, usage of final with data, overloading methods and constructors, parameter passing - call by value, recursion, nested classes.	9	18
6	**Inheritance:** Inheritance Basics, member access rules, Usage of super key word, forms of inheritance, Method Overriding, Abstract classes, Dynamic method dispatch, Using final with inheritance	2	8
7	**Strings, Packages and Interfaces:** String handling functions, Packages, Class path, importing packages, differences between classes and interfaces, Implementing & Applying interface, enumerations in java.	5	12
8	**Exception Handling:** Exceptions, Types of Exceptions, Handling of Exceptions	3	8

Course Content	**T** - Teaching Hours | **W** – Weightage		
Sr.	**Topics**	**T**	**W**
9	**Multi Threading:** Thread, Usage of threads, Types of threads, Handling Threads	**4**	**10**
10	**Collections Framework:** Functional Programming, Collections, Hierarchy of collections	**8**	**5**
Total		**48**	**97**

Course Outcomes	
At the end of this course, students will be able to:	
CO1	Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects
CO2	Understand dynamic memory management techniques using pointers, constructors, destructors, etc
CO3	Describe the concept of function overloading, operator overloading, virtual functions and polymorphism
CO4	Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.
CO5	Demonstrate the use of various OOPs concepts with the help of programs

Reference Books	
1.	**Introduction to Java Programming (Comprehensive Version) Daniel Liang; Pearson (TextBook)**
2.	**Core Java Volume-II Fundamentals Horstmann & Cornell; Pearson**
3.	**Complete Reference Java 2 Herbert Schildt; TMH**

303105206 - Object Oriented Programming with JAVA Laboratory

Course	Bachelor of Technology (BTech)	**Semester – 3**
Type of Course	-	
Prerequisite	Basic knowledge of software applications	
Course Objective	This course provides a broad introduction to software engineering. The various process models required to develop software is also being described. Moreover the functional and non-functional requirements are also described.	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	External Marks	Internal Marks	External Marks	Internal Marks	Total Marks
0	0	2	1.00	-	-	30	20	50

SEE *- Semester End Examination,* ***CIA*** *- Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

List of Practical	
1.	**write a program to display Hello World message in console window.**
2.	**Write a program to perform arithmetic and bitwise operations in a single source program without object creation.**
3.	**Write a program to perform arithmetic and bitwise operations by creating individual methods and classes than create an object to execute the individual methods of each operation.**
4.	**Write a java program to display the employee details using Scanner class.**
5.	**Write a Java program that prints all real solutions to the quadratic equation ax2+bx+c = 0. Read in a, b, c and use the quadratic formula. If the discriminate b2-4ac is negative, display a message stating that there are no real solutions?**
6.	**The Fibonacci sequence is defined by the following rule. The first 2 values in the sequence are 1, 1. Every subsequent value is the sum of the 2 values preceding it. Write a Java program that uses both recursive and non- recursive functions to print the nth value of the Fibonacci sequence?**
7.	**Write a Java program that prompts the user for an integer and then prints out all the prime numbers up to that Integer?**
8.	**Write a Java program to multiply two given matrices?**
9.	**Write a Java program for sorting a given list of names in ascending order?**
10.	**Write a java program for Method overloading and Constructor overloading**
11.	**Write a java program to represent Abstract class with example.**
12.	**Write a program to implement multiple Inheritances.**
13.	**write program to demonstrate method overriding and super keyword.**
14.	**Write a java program to implement Interface using extends keyword.**
15.	**Write a java program to create inner classes.**
16.	**Write a java program to create user defined package.**
17.	**Write a Java program that displays the number of characters, lines and words in a text?**
18.	**Write a Java program that checks whether a given string is a palindrome or not. Ex: MADAM is a palindrome?**

19.	**Write a Java program that reads a line of integers and then displays each integer and the sum of all integers. (Use StringTokenizer class)?**
20.	**Write a java program for creating single try block with multiple catch blocks.**
21.	**write a program for multiple try blocks and multiple catch blocks including finally.**
22.	**write a program to create user defined exception.**
23.	**Write a java program for producer and consumer problem using Threads.**
24.	**Write a java program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number.**
25.	**write a program to create dynamic array using ArrayList class and the print the contents of the array object.**
26.	**Write programs to implement add, search and remove operation on ArrayList object.**

303191202 - Discrete Mathematics

Course	Bachelor of Technology (BTech)	**Semester – 3**
Type of Course	-	
Prerequisite	Basic Concepts of Set Theory, Function	
Course Objective	The course provides a mathematical background related to Computer engineering.	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	External Marks	Internal Marks	External Marks	Internal Marks	Total Marks
4	-	-	4.00	60	20	-	-	100

***SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

Course Content **T** - Teaching Hours | **W** – Weightage

Sr.	Topics	T	W
1	**UNIT 1**	6	11
	Sets, Relation and Function: Cartesian products, Binary relation, Partial ordering relation, Equivalence relation, Size of a set, Finite and infinite sets, Countable and uncountable Sets, Cantor's diagonal argument, The power Set theorem, Schroeder-Bernstein theorem, **Lattices:** Definitions and properties, Hasse diagrams, and examples		
2	**UNIT 2**	5	9
	Principles of Mathematical Induction: The Well-Ordering Principle, Recursive definition, The division algorithm: Prime Numbers, The greatest common Divisor: Euclidean Algorithm, The fundamental theorem of arithmetic. Basic counting techniques-inclusion and exclusion, pigeon-hole principle, permutation and combination.		
3	**UNIT 3**	11	18
	Propositional Logic: Syntax, Semantics, Validity and Satisfiability, Basic Connectives and Truth Tables, Logical Equivalence: the laws of logic, logical implication, Rules of inference, The use of quantifiers **Proof Techniques:** Some terminology, Proof methods and Strategies, Forward Proof, Proof by contradiction, Proof by contraposition, Proof of necessity and sufficiency.		
4	**UNIT 4**	24	40
	Algebraic Structures and Morphism: Algebraic Structures with one binary operation, Semi groups, Monoids, Groups, Congruence relation and Quotient structures, Free and cyclic groups, Permutation groups, Substructures, Normal subgroups, Algebraic structures with two binary operation, Rings, Integral domain and Fields. Boolean algebra and Boolean ring, Identities of boolean algebra, duality, Representation of boolean function, Disjunctive and conjunctive normal form.		
5	**UNIT 5**	14	22
	Graphs and Trees: Graphs and their properties, Degree, connectivity, Path, Cycle, Sub Graph, Isomorphism, Eulerian and Hamiltonian walks, Graph colouring, colouring maps and Planar graphs, colouring vertices, colouring edges, List colouring, Perfect graph, definition properties and example, Rooted trees and sorting, Weighted trees and Prefix codes, Bi-connected component and Articulation Points, Shortest distances.		
Total		**60**	**100**

Reference Books	
1.	**Discrete Mathematics and its Applications (TextBook)** Kenneth H. Rosen; Tata McGraw – Hill
2.	**Discrete Mathematics** Norman L. Biggs; Oxford University Press; 2nd Edition
3.	**Discrete Mathematical Structures with Applications to Computer Science (TextBook)** J.P.Tremblay and R. Manohar; Tata McGraw-Hill
4.	**Discrete Mathematics with Applications (TextBook)** Susanna S. Epp; Wadsworth Publishing Co. Inc.; 4
5.	**Elements of Discrete Mathematics A Computer Oriented Approach (TextBook)** C. L. Liu and D P Mohapatra; Tata McGraw – Hill; 3

303193203 - Professional Communication Skills

Course	Bachelor of Technology (BTech)	**Semester – 3**
Type of Course	-	
Prerequisite	Knowledge of English language in practical life	
Course Objective	Knowledge and application of English, Aptitude and Management Skills are crucial for better employability as well as professionalism	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	External Marks	Internal Marks	External Marks	Internal Marks	Total Marks
-	2	-	2.00	-	-	-	-	100

***SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

Course Content **T** - Teaching Hours | **W** – Weightage

Sr.	Topics	T	W
1	**Technical Writing: Email etiquette & Email writing Letter Writing** **(Types of Letters & Layout)**: • Trains students on detailed email and letter writing • Students will be able to write formal letters following certain stipulated formats. They will learn different types of letters for different official purposes.	4	10
2	**Interpersonal Communication at Workplace: Dynamics of communication** • To develop the confidence to handle a wide range of demanding situation more effectively at the workplace • To enable the students to analyse their own interpersonal communication style.	2	10
3	**Debate: The three minute debate planner** • To enable the students to generate effective critical thinking into primary issues in the given topic. • Students will be able to resolve controversies and recognize strengths and weaknesses of arguments.	4	10
4	**Goal setting & Tracking** To enable the students to define strategies or implementation steps to attain the identified goals and make progress every day.	2	10
5	**Time Management & Task Planning (Case –study)** • To enable the students to identify their own time wasters and adopt strategies to reduce them. • To enable students to clarify and priorities their objective and goals by creating more planning time	2	5
6	**Reading Comprehension: Intermediate level** To enable the students develop the knowledge, skills, and strategies they must possess to become proficient and independent readers	2	5
7	**Listening Skills: Small everyday conversation & comprehension** • Provides practice on understanding accents and day to day • Listening to English conversations in different context.	2	10
8	**Information design and writing for print and online media: Blog Writing** • To enable students to design information that is targeted to specific audiences in specific situation to meet defined objectives. • To create blogs and share their own knowledge and experience to the world.	2	5
9	**Advanced vocabulary Building**	4	10

Course Content	**T** - Teaching Hours | **W** - Weightage		
Sr.	**Topics**	**T**	**W**
	• The students will expand their vocabulary so as to enhance their proficiency in reading and listening to academic texts, writing, and • The students will attain vocabulary to comprehend academic and social reading and listening • The students will develop adequate speaking skills to communicate effectively.		
10	**Picture Perception** To prepare the students for a test for basic intelligence and IQ, generally done on the first day of SSB (Sashastra Seema Bal is one of India's Central Armed Police Forces)	**1**	**5**
11	**Appreciation, Apology and Acknowledgement letters** • To enable the students to maintain productive business relationship through different types of letters. • To enable the students to express their feelings without speaking out loud.	**2**	**10**
12	**The Art of Negotiation** • To enable the students to reach an agreement for mutual benefits through negotiation. • To enable the students to learn a process by which compromise or agreement is reached while avoiding argument and dispute	**2**	**5**
13	**Activity Session (Game of Truth)** • To make the students think of significance of certain things in their life. • To make them share their thoughts and perception of matters in life, with others.	**1**	**0**
Total		**30**	**95**

Reference Books	
1.	**Business Correspondence and Report Writing** SHARMA, R. AND MOHAN, K.
2.	**Communication Skills 2011** Kumar S and Lata P; Oxford University Press
3.	**Practical English Usage** MICHAEL SWAN
4.	**A Remedial English Grammar for Foreign Student** F.T. WOOD
5.	**On Writing Well** William Zinsser; Harper Paperbacks,2006; 30th anniversary edition
6.	**Oxford Practice Grammar,** John Eastwood; Oxford University Press
7.	**Quantitative Aptitude for Competitive Examinations** Dr. R.S. Aggarwal

303105220 - Digital Electronics

Course	Bachelor of Technology (BTech)	**Semester - 3**
Type of Course	-	
Prerequisite	Basic Electronics	
Course Objective	This course is design to provide basic ideas of computer architecture. This course also makes help to understand organization and architecture of computer. It will help to develop their logical abilities.	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	External Marks	Internal Marks	External Marks	Internal Marks	Total Marks
3	0	0	3.00	60	20	-	-	100

***SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

Course Content **T** - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
1	**Fundamentals of Digital Systems and logicfamilies :**Digital signals, digital circuits, Number Systems:binary, signed binary, octal, hexadecimal number, binary arithmetic, onės and twȯs complements arithmetic, codes, BCD arithmetic ,error detecting and correcting codes, AND, OR, NOT, NAND, NOR and Exclusive-OR operations, examples of IC gates, characteristics of digital lCs, Digital Logic families:TTL and CMOS logic, interfacing CMOS and TTL.	15	7
2	**Minimization Techniques:**Boolean Algebra, Boolean postulates and laws, De-Morgaṅs Theorem, Principle of Duality, Boolean expression, Minterm, Maxterm, Sum of Products (SOP), Product of Sums (POS), K-map representation, simplification and minimization of logic functions using K-map. Doṅt care conditions and Quine-McCluskey Method of minimization. Variable Entered Maps, Realizing Logic Function with Gates.	20	8
3	Combinational Digital Circuits:Binary Adders and Subtractors, Parallel binary adder & subtractor, Serial adder, BCD adder, Carry look ahead adder, Multiplexer/De Multiplexer, Encoder/Decoders, Popular MSI chips, Magnitude comparator, parity checker/generator, code converters, priority encoders, decoders/drivers for display devices.	20	9
4	**SEQUENTIAL CIRCUITS**:A 1-bit memory, the circuit properties of Bi-stable latch, the clocked SR flip flop, J- K-T and Dtypesflip flops, applications of flipflops, shift registers, Applications of shift registers, ring counter, sequence generator, ripple (Asynchronous) counters, synchronous counters,special counter IC̣s, asynchronous sequential counters, applications ofcounters.	20	9
5	**A/D and D/A Converters**:Digital to analog converters: weighted resistor/converter, R-2R Ladder, examples of D to A converters IC̣s, Analog to Digital converters: successive approximation, A/D converter, dual slope A/D Converter, Example of A/DConverterICs.	10	5
6	**Semiconductor Memories And Programmable Logic Devices**:Classification and characteristics of memories, Content addressable memory (CAM), commonly used memory chips, Introduction of PLD,ROM as a PLD, Programmable logic array, Programmable array logic, Complex Programmable logic devices (CPLDS), Field Programmable Gate Array (FPGA)	15	7
Total		**45**	**100**

Reference Books

1. **Modern Digital Electronics (TextBook)**
By R. P. Jain | Tata McGraw-Hill Education

2.	**Digital Logic and Computer Design** By Morris Mano | PHI
3.	**Fundamentals of Digital Circuits** By Anand Kumar | Prentice-Hall of India Private Limited, New Delhi (2006)

303105221 - Digital Electronics Laboratory

Course	Bachelor of Technology (BTech)	**Semester - 3**
Type of Course	-	
Prerequisite	Basic Electronics.	
Course Objective	This course is design to provide basic ideas of computer architecture. This course also makes help to understand organization and architecture of computer. It will help to develop their logical abilities	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	External Marks	Internal Marks	External Marks	Internal Marks	Total Marks
0	0	2	1.00	-	-	30	20	50

***SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

List of Practical

1.	**To Study and Testing of various Logic Gates ICs.** To Study and Testing of various Logic Gates ICs.
2.	**Configuring NAND and NOR logic gates as universal gates.** Configuring NAND and NOR logic gates as universal gates.
3.	**Design Logic Gates using TTL Logic Gamily.** Design Logic Gates using TTL Logic Gamily.
4.	**Study and Implementation of Boolean Logic Functions and combinational circuits like Adder/ Subtractor, Code Converters,using Logic Gates.** Study and Implementation of Boolean Logic Functions and combinational circuits like Adder/ Subtractor, Code Converters, using Logic Gates.
5.	**Study and Implementation of Boolean Logic Functions and combinational circuits like Multiplexers/De-Multiplexres using Logic Gates.** Study and Implementation of Boolean Logic Functions and combinational circuits like Multiplexers/De-Multiplexres using Logic Gates.
6.	**Study and Implementation of Boolean Logic Functions and combinational circuits like Encoders/ Decoders, using Logic Gates.** Study and Implementation of Boolean Logic Functions and combinational circuits like Encoders/ Decoders, using Logic Gates.
7.	**Study and configure of flip-flop using digital ICs. Design digital system using these circuits.** Study and configure of flip-flop using digital ICs. Design digital system using these circuits.
8.	**Study and configure of registers and counters using digital ICs. Design digital system using these circuits.** Study and configure of registers and counters using digital ICs. Design digital system using these circuits.
9.	**Study and Design A to D / D to A converters.** Study and Design A to D / D to A converters.
10.	**Introduction to FPGA / CPLD. Implementation of digital circuits studied in previous sessions using PLD/ CPLD / FPGA** Introduction to FPGA / CPLD. Implementation of digital circuits studied in previous sessions using PLD/ CPLD / FPGA

303105201 - DDS - DESIGN OF DATA STRUCTURES

SR.NO.	LECTURE NO	UNIT NO	TOPIC
			UNIT- 1 , INTRODUCTION :
1	1	1	Data Structures, Classifications (Primitive & Non-Primitive), Data structure Operations
2	2	1	Review of Arrays, Structures,
3	3	1	Self-Referential Structures, and Unions
4	4	1	Pointers and Dynamic Memory Allocation Functions.
5	5	1	Representation of Linear Arrays in Memory, dynamically allocated arrays
6	6	1	Performance analysis of an algorithm and space and time complexities
			UNIT-2 , Stacks, Recursion and Queue
7	7	2	Stacks: Definition, Stack Operations, Array Representation of Stacks
8	8	2	Stacks using Dynamic Arrays
9	9	2	Stack Applications: Polish notation, Infix to postfix conversion with examples ,
10	10	2	evaluation of postfix expression , Recursion -Factorial, GCD, Fibonacci Sequence, Tower of Hanoi
11	11	2	Queues: Definition, Array Representation, Simple Queue (Linear Queue), Queue Operations
12	12	2	Circular Queues, Circular queues using Dynamic arrays
13	13	2	Deque, Priority Queues and its problems
14	14	2	Applications of queue
			UNIT-3 , Linked Lists:
15	15	3	Definition, Representation of linked lists in Memory, Memory allocation; Garbage Collection
16	16	3	Linked list operations::Traversing, Searching, Insertion, and Deletion.
17	17	3	Doubly Linked lists
18	18	3	Circular linked lists, and header linked lists
19	19	3	Linked Stacks and Queues. Applications of Linked lists
			UNIT-4:Searching and Sorting:
20	20	4	Interpolation Search, Sorts: Selection Sort
21	21	4	Insertion Sort
22	22	4	Bubble Sort
23	23	4	Quick Sort,
24	24	4	Merge Sort, Radix Sort
			UNIT-5, Trees:
25	25	5	Terminology, Binary Trees, Properties of Binary trees
26	26	5	Array and linked Representation of Binary Trees,
27	27	5	Binary Tree Traversals - In Order, Post Order, Pre Order
28	28	5	Binary Tree Traversals - In Order, Post Order, Pre Order(CONTD.),Additional Binary tree operations
29	29	5	Threaded binary trees,
30	30	5	Binary Search Trees – Definition, Insertion, Deletion,
31	31	5	Binary Search Trees – Traversal, Searching
32	32	5	Numericals on Binary Search Tree
33	33	5	Application of Trees-Evaluation of Expression
			UNIT-6, Red Black Trees and AVL Trees
34	34	6	Introduction-Operations on Red Black Trees
35	35	6	AVL tree Construction
36	36	6	Operations on AVL Trees
			UNIT-7 , Hashing:
37	37	7	Hash Table organizations
38	38	7	Hashing Functions
39	39	7	Static and Dynamic Hashing
40	40	7	Static and Dynamic Hashing (CONTD.)
			UNIT-8 , Graphs:
41	41	8	Definitions, Terminologies
42	42	8	Matrix and Adjacency List Representation of Graphs
43	43	8	Elementary Graph operations
44	44	8	Traversal methods: Breadth First Search
45	45	8	Traversal methods: Depth First Search

303105202- DDS LAB - DESIGN OF DATA STRUCTURES LABORATORY

SR.NO.	LAB NO	PRACTICAL NO	PRACTICAL TITLE
1	1	1	Implement Stack and its operations like (creation push pop traverse peek search) using linear data structure
2	2		
3	3	2	Implement Infix to Postfix Expression Conversion using Stack
4	4		
5	5		
6	6	3	Implement Postfix evaluation using Stack
7	7	4	Implement Towers of Hanoi using Stack.
8	8	5	Implement queue and its operations like enqueue, dequeue, traverse, search.
9	9		
10	10	6	Implement Single Linked lists and its operations(creation insertion deletion traversal search reverse)
11	11		
12	12	7	Implement Double Linked lists and its operations(creation insertion deletion traversal search reverse)
13	13		
14	14	8	Implement binary search and interpolation search.
15	15		
16	16	9	Implement Bubble sort, selection sort, Insertion sort, quick sort ,merge sort.
17	17		
18	18		
19	19		
20	20		
21	21	10	Implement Binary search Tree and its operations (creation, insertion, deletion).
22	22		
23	23		
24	24	11	Implement Traversals Preorder Inorder Postorder on BST.
25	25		
26	26	12	Implement Graphs and represent using adjaceny list and adjacency matrix and implement basic operations with traversals (BFS and DFS)
27	27		

303105203 - DBMS – DATABASE MANAGEMENT SYSTEM -

SR NO..	LECTURE NO.	UNIT	TOPIC
1	1	1	Introduction and applications of DBMS , File Processing System and its limitations
2	2		ANSI/SPARC Model, Client-Server Architecture
3	3		Users & DBA, Database Architecture , Data Independence
4	4	2	Data Definition Language (DDL) commands, Data Manipulation Language (DML) commands
5	5		Data Control Language (DCL) commands, Transaction Control Language (TCL) commands.
6	6		Predicates & Clauses: Logical Operators (AND / OR), Relational Operators, BETWEEN Predicate, IN & NOT IN Predicate, LIKE Predicate.
7	7		Aggregate Functions, Character Functions
8	8		Arithmetic Functions, Date Functions, Conversion Functions.
9	9	3	Hierarchical Model, Network Model, Relational Model, Object Oriented Model.
10	10		Introduction to E-R Diagram, Entities, Attributes & its types, Relationships,
11	11		Mapping Cardinalities, Participation Constraints, Weak Entity Sets,
12	12		Specialization, Generalization, Aggregation
13	13	4	Introduction, Degree, Cardinality.
14	14		Primary Key, Foreign Key, Super Key, Candidate Key, Not Null Constraint, Check Constraint.
15	15		Selection, Projection, Cross-Product, Rename, Joins (Natural & Outer Join),
16	16		Set Operators (Union, Intersection, Set Difference), Aggregate Functions.
17	17	5	Functional Dependency – definition, trivial and non-trivial FD
18	18		Armstrong's Axioms/Inference Rules, Closure of FD, Closure of Attributes,
19	19		Candidate Key, Finding a Candidate Key, Decomposition (Lossy & Lossless), Database Anomalies,
20	20		Normalization – 1NF ,2 NF and 3 NF
21	21		Normalization – BCNF, 4NF, 5NF
22	22	6	Introduction, ACID Properties, Transaction Life Cycle
23	23		Scheduling, Serial Schedule, Interleaved Schedule,
24	24		Transaction Operations, Serializability (View & Conflict),
25	25		Two-Phase Commit Protocol.
26	26		Introduction, Log Based Recovery, Shadow Paging, Checkpoints
27	27		Introduction, Lock Based Protocol, Two Phase Lock Protocol
28	28		Intention Locking, Multiple Granularity, Time-based Protocol.
29	29		Introduction, Deadlock Detection, Deadlock Recovery
30	30		Deadlock Prevention (Wait-Die, Wound-Wait & Timeout-Based Approach).
31	31	7	Introduction, Layers of Query Processing
32	32		Measures of Query Cost, File Scans (Linear & Binary Search), Materialized View, Pipelining.
33	33		Introduction, Equivalence Rules, Cost-Based Query Optimization
34	34	8	Data Security, Data Integrity, Authentication, Authorization
35	35		Encryption, Decryption, Access Control (DAC, RBAC, MAC),
36	36		Intrusion Detection, SQL Injection
37	37	9	Views, PL/SQL Block
38	38		Cursors
39	39		Triggers
40	40		Stored Procedures, Store Functions

DATABASE MANAGEMENT SYSTEM LABORATORY - 303105204

SR.NO.	LAB NO	PRACTICAL TITLE
1	1	1. What is DBMS? Explain advantages of DBMS over FPS.
2	2	2. List 15 applications of Database. Explain any 2 how Database can be helpful in managing that application?
3	3	3. Create the Database
4	4	Create following Tables
5	5	Simple Queries:
6	6	Simple Queries
7	7	“Like” Queries
8	8	“Aggregate Functions & DML” Queries
9	9	“Join” Queries
10	10	“Join” Queries
11	11	“Miscellaneous” Queries
12	12	PL/SQL Block

303105205 - OBJECT ORIENTED PROGRAMMING WITH JAVA

SR NO.	LECTURE NO.	UNIT	TOPIC
1	1	1	1. Introduction to Object-Oriented Programming and Java Basics
2	2		2. Inheritance and Polymorphism in Java
3	3		3. Importance of Java and its Usage in Industry
4	4		4. Bytecode, Compiling, and Running Java Programs
5	5	2	Understanding Data Types and Variables
6	6		Scope and Lifetime of Variables
7	7		Type Conversion and Casting
8	8		Operators in Java
9	9	3	1. Introduction to Control Statements
10	10		2. Conditional Statements in Java
11	11		3. Looping Statements in Java
12	12		4. Advanced Looping Techniques and Nested Statements
13	13		5. Jump Statements and Their Usage in Java
14	14	4	Introduction to Arrays
15	15		Understanding Array Values and Memory Storage Structure
16	16		Types of Arrays: One-Dimensional and Multi-Dimensional Arrays
17	17		Advanced Array Operations and Applications
18	18	5	Introduction to Classes and Objects
19	19		Declaring Objects and Assigning Object Reference Variables
20	20		Methods in Java Classes
21	21		Constructors in Java Classes
22	22		Access Control in Java Classes
23	23		Garbage Collection and Memory Management
24	24		Usage of Static with Data and Methods
25	25		Usage of Final with Data and Methods
26	26	6	Inheritance Basics and Member Access Rules
27	27		Method Overriding, Abstract Classes, Dynamic Method Dispatch, and Using 'final' with Inheritance
28	28	7	String Handling Functions in Java
29	29		Packages, Class Path, and Importing Packages
30	30		Understanding Differences between Classes and Interfaces
31	31		Implementing and Applying Interfaces in Java
32	32		Enumerations in Java: Introduction and Usage
33	33	8	1. Introduction to Exceptions and Types
34	34		2. Handling Strategies for Exceptions
35	35		3. Advanced Exception Handling Techniques
36	36	9	Introduction to Threads
37	37		Usage of Threads
38	38		Types of Threads
39	39		Handling Threads
40	40	10	Introduction to Collections Framework
41	41		Understanding Functional Programming in Java
42	42		Overview of Collection Interfaces
43	43		Introduction to Collection Classes
44	44		Hierarchy of Collection Interfaces
44	44		Hierarchy of Collection Classes
44	44		Functional Programming Features in Collections Framework
44	44		Applying Functional Programming Techniques in Collections

303105206 - OOPJ - OBJECT ORIENTED PROGRAMMING WITH JAVA LABORATORY-

SR.NO.	LAB NO	PRACTICAL TITLE
1	1	write a program to display Hello World message in console window.
2	2	Write a program to perform arithmetic and bitwise operations in a single source program without object creation.
3	3	Write a program to perform arithmetic and bitwise operations by creating individual methods and classes than create an object to execute the individual methods of each operation.
4	4	Write a java program to display the employee details using Scanner class.
5	5	Write a Java program that prints all real solutions to the quadratic equation ax2+bx+c = 0. Read in a, b, c and use the quadratic formula. If the discriminate b2-4ac is negative, display a message stating that there are no real solutions?
6	6	The Fibonacci sequence is defined by the following rule. The first 2 values in the sequence are 1, 1. Every subsequent value is the sum of the 2 values preceding it. Write a Java program that uses both recursive and non- recursive functions to print the nth value of the Fibonacci sequence?
7	7	Write a Java program that prompts the user for an integer and then prints out all the prime numbers up to that Integer?
8	8	Write a Java program to multiply two given matrices?
9	9	Write a Java program for sorting a given list of names in ascending order?
10	10	Write a java program for Method overloading and Constructor overloading
11	11	Write a java program to represent Abstract class with example.
12	12	Write a program to implement multiple Inheritances.
13	13	write program to demonstrate method overriding and super keyword.
14	14	Write a java program to implement Interface using extends keyword.
15	15	Write a java program to create inner classes.
16	16	Write a java program to create user defined package.
17	17	Write a Java program that displays the number of characters, lines and words in a text?
18	18	Write a Java program that checks whether a given string is a palindrome or not. Ex: MADAM is a palindrome?
19	19	Write a Java program that reads a line of integers and then displays each integer and the sum of all integers. (Use StringTokenizer class)?
20	20	Write a java program for creating single try block with multiple catch blocks.
21	21	write a program for multiple try blocks and multiple catch blocks including finally.
22	22	write a program to create user defined exception.
23	23	Write a java program for producer and consumer problem using Threads.
24	24	Write a java program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number.
25	25	write a program to create dynamic array using ArrayList class and the print the contents of the array object.
26	26	Write programs to implement add, search and remove operation on ArrayList object.

303191202 – DM - DISCRETE MATHEMATICS

SR NO.	LECTURE NO.	UNIT	TOPIC
1	1	1	**Sets, Relation, and Function**
2	2		Cartesian products, Binary relation, Partial ordering relation, Equivalence relation
3	3		Size of a set, Finite and infinite sets, Countable and uncountable Sets
4	4		Cantor's diagonal argument, The power Set theorem, Schroeder-Bernstein theorem
5	5		**Lattices:** Definitions and properties, Hasse diagrams, and Examples
6	6		Tutorial-1
7	7	2	**Propositional Logic and Proof Techniques**
8	8		Syntax, Semantics, Validity and Satisfiability, Basic Connectives and Truth
9	9		Tables.
10	10		Logical Equivalence: The Laws of Logic, Logical Implication, Rules of Inference, The use of Quantifiers.
11	11		**Proof Techniques:** Some terminology, Proof methods and Strategies, Forward Proof,
12	12		Proof by contradiction, Proof by contraposition, Proof of necessity and sufficiency.
13	13		Tutorial-2
14	14	3	**Principles of Mathematical Induction**
15	15		The Well-Ordering Principle, Recursive definition, The division algorithm: Prime Numbers.
16	16		The Greatest Common Divisor: Euclidean Algorithm, The Fundamental Theorem of Arithmetic.
17	17		Basic counting techniques-inclusion and exclusion, pigeon-hole principle, permutation and combination.
18	18		Tutorial-3
19	19	4	**Graphs and Trees**
20	20		Graphs and their properties, Degree, Connectivity, Path, Cycle, Sub Graph
21	21		Isomorphism, Eulerian and Hamiltonian Walks
22	22		Graph Colouring, Colouring maps and Planar Graphs, Colouring Vertices, Colouring Edges, List Colouring,
23	23		Perfect Graph, definition properties and Example
24	24		Rooted trees, trees and sorting, weighted trees and prefix codes
25	25		Bi-connected component and Articulation Points, Shortest distances.
26	26		Tutorial-4
27	27	5	**Algebraic Structures and Morphism**
28	28		Algebraic Structures with one Binary Operation, Semi Groups, Monoids, Groups
29	29		Congruence Relation and Quotient Structures, Free and Cyclic Monoids and Groups,
30	30		Permutation Groups, Substructures, Normal Subgroups, Algebraic Structures with two Binary Operation, Rings,
31	31		Integral Domain and Fields
32	32		Boolean Algebra and Boolean Ring, Identities of Boolean Algebra
33	33		
34	34		Duality, Representation of Boolean Function,
35	35		Disjunctive and Conjunctive Normal Form
36	36		Tutotial-5

PROFESSIONAL COMMUNICATION SKILLS-1 (203193201)

Sr No.	Lecture No.	Unit No.	Topics
1	1	1	Reading Comprehension
2	2		Interpersonal Communication at Workplace: Introduction
3	3	2	Interpersonal Communication at Workplace:
4	4		Interpersonal Communication at Workplace: Non-
5	5	3	The Art of Negotiation
6	6		Picture Perception Tutorial Activity:
7	7	4	Goal setting & Tracking
8	8		Time Management & Task Planning (Case study) Tutorial
9	9	5	Debate: The three minute debate planner
10	10		Debate
11	11	6	Debate
12	12		Technical Writing: Email etiquette & Email writing
13	13	7	Letter Writing: Business letter writing etiquette
14	14		Technical Writing: Types of letters & Layout
15	15	8	Technical Writing: Appreciation letter
16	16		Technical Writing: Apology and Acknowledgement letters
17	17	9	Listening Skills: Small everyday conversation & comprehension
18	18		Advanced vocabulary Building:
19	19	10	Advanced vocabulary Building:
20	20		Advanced vocabulary Building:
21	21	11	Advanced vocabulary Building:
22	22		Information design and writing for print and online media: Blog Writing
23	23	12	Information design and writing for print and online media: Blog Writing
24	24		Reading Comprehension

303105220 - Digital Electronics

Sr No.	Lecture no.	Unit	Topic
1	1	1	Introduction to Digital Systems and Binary Numbers
2	2	1	Number Systems and Conversions
3	3	1	Binary Arithmetic
4	4	1	Logic Gates and Boolean Algebra
5	5	1	Standard Forms of Boolean Expressions
6	6	1	Simplification of Boolean Functions
7	7	1	Karnaugh Maps
8	8	1	Quine-McCluskey Method
9	9	1	Overview of Digital ICs and Logic Families
10	10	2	Introduction to Combinational Circuits
11	11	2	Designing Combinational Circuits
12	12	2	Adders and Subtractors
13	13	2	Multiplexers and Demultiplexers
14	14	2	Encoders and Decoders
15	15	2	Code Converters
16	16	2	Parity Generators and Checkers
17	17	2	BCD Arithmetic Circuits
18	18	2	Introduction to PLDs (Programmable Logic Devices)
19	19	3	Introduction to Sequential Circuits
20	20	3	Latches and Flip-Flops
21	21	3	Types of Flip-Flops
22	22	3	Flip-Flop Conversions
23	23	3	Counters: Asynchronous and Synchronous
24	24	3	Designing Counters
25	25	3	Shift Registers
26	26	3	Applications of Shift Registers
27	27	3	State Machines and State Diagrams
28	28	4	Introduction to Memory Devices
29	29	4	Types of Memory: RAM, ROM, EEPROM, etc.
30	30	4	Memory Organization and Operation
31	31	4	Designing Memory Systems
32	32	4	Introduction to Programmable Logic Devices (PLDs)
33	33	4	Complex Programmable Logic Devices (CPLDs)
34	34	4	Field Programmable Gate Arrays (FPGAs)
35	35	4	Designing with FPGAs
36	36	4	Applications of PLDs and FPGAs
37	37	5	Introduction to Digital System Design
38	38	5	Design Methodologies and Practices
39	39	5	Designing Arithmetic Circuits
40	40	5	Designing Control Circuits
41	41	5	Designing Interface Circuits
42	42	5	Digital Signal Processing Basics
43	43	5	Applications in Communication Systems
44	44	5	Applications in Embedded Systems
45	45	5	Future Trends in Digital Electronics

303105221 - Digital Electronics Laboratory

Sr No.	Lab no.	Topic
1	1	To Study and Testing of various Logic Gates ICs.
2	2	Configuring NAND and NOR logic gates as universal gates
3	3	Design Logic Gates using TTL Logic Gamily
4	4	Study and Implementation of Boolean Logic Functions and combinational circuits like Adder/ Subtractor, Code Converters,using Logic Gates
5	5	Study and Implementation of Boolean Logic Functions and combinational circuits like Multiplexers/De-Multiplexres using Logic Gates
6	6	Study and Implementation of Boolean Logic Functions and combinational circuits like Encoders/ Decoders, using Logic Gates
7	7	Study and configure of flip-flop using digital ICs. Design digital system using these circuits
8	8	Study and configure of registers and counters using digital ICs. Design digital system using these circuits.
9	9	Study and Design A to D / D to A converters.
10	10	Introduction to FPGA / CPLD. Implementation of digital circuits studied in previous sessions using PLD/ CPLD / FPGA

Details of Value-added courses and Professional courses

1. Value Added Course on Web Designing in September 2024

Student Chapter / Council Details and Planned Activity

Sr No.	Student Chapter	POC	Contact No.
1.	Coding Club	Kiran Kumar	+91 9000694782
2.	Hacking Club	Mayur Pandya	+91 97279 93640
3.	AWS Academy	Prof. Gaurav Varshney	+918979747750

Co-curricular and extra-curricular events during the semester

Sr No.	Events
1.	NCC

Details of visits planned during semester

1. Online Industrial Visit @ Macroworld, Ahmedabad in August 2024

Details of expert talk during the semester

1. 2 Days Hands-on Workshop on JavaScript in August 2024

2. 2 Days Hands-on Workshop on NodeJS in September 2024

Flagship Events of Concerned Institute, Faculty and University

Sr No.	Events
1.	Tech Expo
2.	PICET
3.	PU Code Hackethone
3.	Projection

Prominent academic competition (Outside PU)

Sr No.	Events
1.	SIH(Smart India Hacktheron)

Coordinators of Various Committee (Anti Ragging, WDC, ICC, Office of International Affairs, Centre of International Relations and Research, PIERC, Scholarship, PUMIS, Mentoring etc.)

Committee	Coordinator	Contact no.	Email Address
Anti Ragging,	Rakesh Mishra	9473122585	rakeshkumar.mishra12731@paruluniversity.ac.in
WDC,	Swati Prajapati	9909012774	swati.prajapati@paruluniversity.ac.in
Centre of International Relations and Research	Tulshi Sheth	9724326299	tulsi.sheth12725@paruluniversity.ac.in
PIERC	Nitesh Patel	9924596712	nitesh.patel@paruluniversity.ac.in
, Scholarship,	Kamlesh Parmar	9376215191	kamlesh.parmar@paruluniversity.ac.in
PUMIS,	Dr. yassir farooqi	98217 63324	yassir.farooqui270062@paruluniversity.ac.in
Mentoring	Prof Amin Shaikh	9173118305	amin.shaikh19068@paruluniversity.ac.in
AWS	Prof Gaurav Varshney	8979747750	gaurav.varshney19340@gmail.com
NPTEL	Dr. Khyati Zalawadia	9879035838	khyati.zalawadia29490@paruluniversity.ac.in

Ranker List of Last Semester Result with SPI

Rank No.	Enrollment No	Name of Students	SGPA
1	2203031050557	RAUSHAN KUMAR RAM	6.45
2	2203031050477	PATEL SMIT ASHVINKUMAR	6.41
3	2203031050845	KANNOUJIYA KU SONI RAMESH	6.32

Interaction of Various Media Platforms

Platforms	Links
Facebook	https://www.facebook.com/ParulUniversity
Instagram	https://www.instagram.com/paruluniversity/?hl=en
Linkedin	https://in.linkedin.com/school/paruluniversity/
Youtube	https://www.youtube.com/channel/UCeXQgKg0qhTKbNRi5hpIL9A