PRAHLADRAI DALMIA LIONS COLLEGE OF COMMERCE & ECONOMICS
ISO 9001: 2015 Certified

NOTICE

3st March, 2025

ATKT Internal and Practical Examination
B.Sc.I.T. (SEMESTER-I)

INSTRUCTIONS FOR THE STUDENTS HAVING ATKT IN INTERNALS

1. Date of Submission of the Assignments- **10 th March, 2025**
2. Timings 11:00 AM to 12:00 Noon. Reporting time for students: at least 10 minutes before the mentioned time. Venue: Computer Lab.
3. Students have to be present in person for the submission.
4. Submission of assignments to be done on proper A4 size paper, handwritten by the candidate himself only. The Front page should contain details of Roll no, Name of the student, Semester, Subject.
5. Print out of the questions uploaded should be attached along with the assignment. Students should enclose a photocopy of the ATKT fee paid receipt along with each of his projects.
6. On the date of submission there will be a viva voce on the given questions/topics. 7. If the student fails to present himself on the given date and time he will be marked ABSENT for the said subject.
8. Any Submissions after the above mentioned date and time will not be accepted and entertained under any circumstances.

NOTE - Student who has paid ATKT fees for internal components but has not been allotted questions or has any query is requested to contact Dr. Rupali Mishra on or before, 7th March 2025 by mailing on bscit@dalmialionscollege.ac.in

Prof. (Dr.) D. N. Ganjewar	**Ms.Subhashini Naikar**	**CA Durgesh Kenkre**	**Dr. Rupali Mishra**
(Coordinator - BSc.IT)	**Exam Convener**	**Vice- Principal, SFC**	**(Principal)**

DI/N-STD/GEN/00

Name Of The Student	Subject NameAnd Questions
PANDEY PRADEEPKUMAR VIJAYKUMAR	**COMPUTATIONAL LOGIC AND DISCRETE STRUCTURES(INTERNAL)** 1. Define and explain different set operations with examples. 2.What are equivalence relations? Explain with an example. 3.Solve the recurrence relation: T(n) = 2T(n/2) + n, using the recursion tree method. 4.Explain Euler's and Hamiltonian paths in graph theory with examples. 5. Describe the properties of lattices and give an example of a bounded lattice.
	TECHNICAL COMMUNICATION SKILLS (INTERNAL) 1. Explain the importance of effective communication in technical fields. 2. What are netiquettes? Discuss the best practices for online communication. 3. Describe the key components of a formal business email. 4. How can visual representation of data improve the effectiveness of a report? 5. Discuss the significance of LinkedIn for professional networking and career growth.
SHAIKH AYAAN IQBAL	**PROGRAMMING PRINCIPLES WITH C (INTERNAL)** 1. Explain the structure of a C program and the role of different components such as the compiler, linker, and preprocessor. 2. Describe the different types of operators in C with suitable examples. 3. Discuss the concept of pointers in C and explain how pointers are used for dynamic memory allocation. 4. What is recursion in C? Explain with an example program. 5. Explain file handling in C with a brief overview of different file operations.
	FUNDAMENTALS OF DATABASE MANAGEMENT SYSTEMS (INTERNAL) 1. Explain the three levels of database architecture with examples.

	2. Describe the various types of keys in the relational model with examples. 3. What are the different types of normal forms? Explain with examples. 4. Write and explain SQL queries for inserting, updating, and deleting records from a table. 5. Discuss different types of database indexing techniques and their applications.
	COMPUTATIONAL LOGIC AND DISCRETE STRUCTURES (INTERNAL) 1. Explain the pigeonhole principle with an example. 2. What is the principle of mathematical induction? Prove that the sum of the first *n* natural numbers is n(n+1)/2 using induction. 3. Define and explain different types of graphs (simple graph, complete graph, bipartite graph) with examples. 4. Explain the difference between Eulerian and Hamiltonian circuits. Give an example of each. 5. What are Boolean functions? Explain how Boolean expressions can be minimized using Karnaugh maps (K-maps).
	TECHNICAL COMMUNICATION SKILLS (INTERNAL) 1. What is technical communication important in the workplace? 2. List and briefly describe three common types of technical documents. 3. Explain the role of visuals like charts and diagrams in technical communication. 4. What are the key elements to consider when writing a user manual? 5. Describe the purpose of a technical report and its typical structure.
	PROGRAMMING PRINCIPLES WITH C PRACTICAL 1. Write a program in C to check whether a number is prime or not using a loop. 2. Implement a program to find the factorial of a number using recursion. 3. Write a program to find the largest and smallest number in an array.

	DIGITAL LOGIC AND APPLICATION PRACTICAL 1. Verify the truth table of basic logic gates using ICs. 2.Implement a 4-bit binary to Gray code converter. 3. Design and implement a half adder and a full adder circuit.

	FUNDAMENTALS OF DATABASE MANAGEMENT SYSTEMS PRACTICAL 1. Draw an ER diagram for a university database and convert it into relational schema. 2. Write SQL queries to demonstrate the use of aggregate functions such as COUNT, AVG, and SUM. 3. Create a view in SQL and demonstrate its usage with queries.
	COMPUTATIONAL LOGIC AND DISCRETE STRUCTURES PRACTICAL 1. Write a SCILAB program to compute the power set of a given set. 2. Implement a SCILAB program to verify the inclusion-exclusion principle. 3. Write a program to generate Fibonacci numbers using recursion in SCILAB.
	TECHNICAL COMMUNICATION SKILLS PRACTICAL 1. Use MS Word to create a well-formatted resume for a software developer. 2. Write an email to a professor requesting a recommendation letter for higher studies. 3. Use Excel to analyze and visualize sales data using pivot tables and charts.
