

Centre for Development of Advanced Computing (CDAC)



CDAC C-CAT Exam Pattern

Categories of PG Diploma courses and the corresponding test paper(s) in C-CAT

Course Category	Course Name	C-CAT Papers
I	PG Diploma in Geoinformatics (PG-DGi)	Section A
II		
	PG Diploma in Advanced Computing (PG-DAC)	Section A + Section B
	PG Diploma in Big Data Analytics (PG-DBDA)	
	PG Diploma in IT Infrastructure, Systems & Security (PG-DITISS)	
	PG Diploma in Internet of Things (PG-DIoT)	
	PG Diploma in Artificial Intelligence (PG-DAI)	
	PG Diploma in Mobile Computing (PG-DMC)	
	PG Diploma in Advanced Secure Software Development (PG-DASSD)	

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	PG Diploma in HPC System Administration (PG-HPCSA)	
III		
	PG Diploma in Embedded Systems Design (PG-DESD)	Section A + Section B + Section C
	PG Diploma in VLSI Design (PG-DVLSI)	
	PG Diploma in Robotics & Allied Technologies (PG-DRAT)	

Indicative syllabus of the different sections of test papers in C-CAT

Test Paper	Topics	Duration
Section A	English, Quantitative Aptitude, Reasoning	1 Hour
Section B	Computer Fundamentals, C Programming, Data Structures, Object-Oriented Programming Concepts, Operating Systems	1 Hour
Section C	Computer Architecture, Digital Electronics, Microprocessors	1 Hour

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CDAC C-CAT Syllabus

English

- Idioms and Phrases
- Sentence Improvement
- Synonyms
- Sentence Arrangement
- Substitution
- Prepositions
- Antonyms
- Fill in the blanks
- Passage Completion
- Spotting Errors
- Substitution
- Sentence
- Active and Passive Voice
- Completion
- Spelling Test
- Error Correction (Underlined Part)
- Transformation
- Para Completion
- Joining Sentences
- Error Correction (Phrase in Bold)

Quantitative Aptitude

- Time and Work Partnership
- Ratio and Proportion
- Boats and Streams
- Simple Interest
- Time and Distance
- Problems on Trains
- Areas
- Races and Games
- Numbers and Ages
- Mixtures and Allegations
- Mensuration

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- Permutations and Combinations
- <https://exams.freshersnow.com/>
- Problems on L.C.M and H.C.F
- Pipes and Cisterns
- Percentages
- Simple Equations
- Problems on Numbers
- Averages
- Indices and Surds
- Compound Interest
- Volumes
- Odd Man Out
- Quadratic Equations
- Probability
- Profit and Loss
- Simplification and Approximation

Reasoning

- Mirror Images
- Grouping Identical Figures
- Figure Matrix Questions
- Problem on Age Calculation
- Decision Making
- Inference
- Analogy
- NonVerbal Series
- Test of Direction Sense
- Number Series
- Alphabet Series
- Arguments
- Ven Diagram
- Blood Relations
- Coding and Decoding
- Number Ranking
- Arithmetical Reasoning

Computer Fundamentals

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- History
- Computer components
- Data Mining
- Machine Learning
- Artificial Intelligence
- Cloud Computing
- Key Characteristics of Cloud & Uses
- Wireless Sensor Network
- Big Data
- Blockchain
- Social Media & Digital Marketing
- IoT
- Immersive Technology

C Programming

- Fundamentals of C Language
- History
- Data Types
- Variables
- Constants
- Operators and Enums
- Decision Making
- Loop Control
- Control Flow Statements
- Arrays
- Strings
- Functions
- String Functions
- Recursion
- Pointers
- Structures and Unions
- File Handling
- Dynamic Memory Allocation
- C Pre-processor
- Command Line Arguments

Data Structures

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- Algorithm Analysis
- Lists, Stacks, and Queues
- Trees
- Hashing
- Priority Queues (Heaps)
- Sorting
- Graph Algorithms
- Algorithm Design Techniques
- Amortized Analysis
- Advanced-Data Structures and Implementation

Object-Oriented Programming Concepts

- Fundamental of C++
- C++ Programming basics
- Functions
- Object and Classes
- Arrays and string arrays fundamentals.
- Arrays as class Member Data
- Operator overloading
- Inheritance
- Pointer
- Virtual Function
- Streams and Files
- Templates and Exceptions
- The Standard Template Library

Operating Systems

- What is an OS
- History
- Computer System review
- Basic OSs
- Batch
- Operating-System Structures
- Processes
- CPU Scheduling
- Process Synchronization

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- Deadlocks
- Memory Management
- Storage
- File System Implementation
- Secondary Storage Structure

Computer Architecture

- Basic structure of a computer system
- Arithmetic for computers
- Processor and control unit
- Parallelism
- Memory & I/O Systems

Digital Electronics

- Digital Fundamentals
- Combinational Circuit Design
- Synchronous Sequential Circuits
- Asynchronous Sequential Circuits
- Memory Devices And Digital Integrated Circuits

Microprocessors

- Introduction to Microprocessor
- 8-bit Microprocessor
- 16-bit Microprocessor
- Fundamental of Programming
- Peripheral Interfacing