



# **GATE-2024**

# **Online Test Series**

# Computer Science and Information Technology - Schedule

	GATE - 2024 Test Series	Practice Tests	
Topic wise Tests	23	23	
Grand Tests (Subject Wise Tests + Multi-Subject Wise Tests)	19	19	
Full Length Mock Tests	12	12	

### Total Tests - 108

Note:

★ The Syllabus considered as per Previoues year Notification of GATE. ACE Engineering Academy does not take any responsibility for deviations in syllabus in the final exam.

- ★ The Dates of Tests may Change according to the GATE-2024 Exam schedule.
- $\star$  Tests will be activated at 06:00 pm on the scheduled day.
- ★ All tests will be active till GATE-2024 Exam.

### **Topic wise Tests**

	(No.of Questions: 15, Time duration: 42 Minutes and Marks: 25 M)	
Test No	Name of the Test	Date of Activation
Test-01	Engineering Mathematics-1: Linear Algebra: Matrices, determinants, system of linear equations, eigenvalues and eigenvectors, LU decomposition. Calculus: Limits, continuity and differentiability. Maxima and minima. Mean value theorem. Integration. Probability and Statistics: Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem.	17-04-2023
Test-02	<b>Engineering Mathematics-2:</b> Discrete Mathematics: Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Monoids, Groups	
Test-03	Engineering Mathematics-3: Discrete Mathematics: Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.	
Test-04	<b>Digital Logic-1:</b> Number Systems,Boolean Expression, Boolean Laws & K-maps	25-04-2023
Test-05	<b>Digital Logic-2:</b> Combinational Circuits, Multiplex & De-Multiplex, Sequential Circuits & Counters	23-04-2023
Test-06	<b>Computer Organization and Architecture-1:</b> Computer Arithmetic, Memory Organization (Cache, Main & Secondary Storage).	
Test-07	<b>Computer Organization and Architecture-2:</b> Instruction Pipelining, Pipeline Hazards, Control Unit Design( H/W & Micro Programmed Control, ALU & Data Path), Machine Instructions & Addressing Modes, I/O Interface (Interrupt and DMA mode), Serial Communication Interface.	02-05-2023
Test-08	<b>Computer Networks-1:</b> Concept of layering: OSI and TCP/IP Protocol Stacks; Basics of packet, circuit and virtual circuit-switching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging	
Test-09	<b>Computer Networks-2:</b> Routing protocols: shortest path, flooding, distance vector and link state routing; Fragmentation and IP addressing, IPv4, CIDR notation, Basics of IP support protocols (ARP, DHCP, ICMP), Network Address Translation (NAT); Transport layer: flow control and congestion control, UDP, TCP, sockets; Application layer protocols: DNS, SMTP, HTTP, FTP. Email.	09-05-2023

Test No	Name of the Test	Date of Activation
Test-10	<b>Theory of Computation-1:</b> Finite automata(DFA,NFA), Regular languages, Regular expression,closure properties of regular sets, pumping lemma. FA WITH OUTPUT, PDA,DPDA. Cfg, Normalisation of Cfg,Dcfl, CFL, closure properties.	
Test-11	<b>Theory of Computation-2:</b> Turning machine, Recursive languages , REL, closure properties of REL, LBA,Csl,closure properties Of csl, Decidable and undecidable/computability, Complexity.	
Test-12	<b>Operating System-1:</b> Introduction,Process Management,System Calls, Synchronization and Concurrency Control, CPU Scheduling, Deadlocks	23-05-2023
Test-13	<b>Operating System-2:</b> Memory Management, I/O scheduling, File Systems,	
Test-14	Algorithms-1: Algorithm Analysis & Asymptotic Notations,Divide and Conquer, Dynamic Programming.	
Test-15	Algorithms-2: Greedy Method, Graph Techniques.	30-05-2023
Test-16	<b>Database-1:</b> ER Diagrams, FD, Normalization, RA & RC	
Test-17	<b>Database-2:</b> SQL, Transaction concurrency, Indexing (e.g., B and B+ trees), Recovery System.	
Test-18	<b>Compiler Design:</b> Lexical Analysis & Parsing ,Semantic Analysis(SDT), Intermediate code generation, Basics of Optimization	
Test-19	Programming: Programming in C, Recursion.	06-06-2023
Test-20	Data Structures: Arrays, Stacks , Queues, Linked Lists, Trees, Graphs & Hashing	
Test-21	Verbal Ability: Basic English grammar: tenses, articles, adjectives, prepositions, conjunctions, verb-noun agreement, and other parts of speech. Basic vocabulary: words, idioms, and phrases in context. Reading and comprehension. Narrative sequencing.	
Test-22	Quantitative Aptitude: Data interpretation: data graphs (bar graphs, pie charts, and other graphs representing data), 2- and 3-dimensional plots, maps, and tables. Numerical computation and estimation: ratios, percentages, powers, exponents and logarithms, permutations and combinations, and series Mensuration and geometry. Elementary statistics and probability.	
Test-23	Analytical Aptitude: Logic: deduction and induction, Analogy, Numerical relations and reasoning Spatial Aptitude: Transformation of shapes: translation, rotation, scaling, mirroring, assembling, and grouping Paper folding, cutting, and patterns in 2 and 3 dimensions	

Test No	Name of the Test	Date of Activation	
	Subject Wise Grand Tests		
	(No.of Questions: 30, Time duration: 83 Minutes and Marks: 50 M)		
Test-24	Engineering Mathematics	27-06-2023	
Test-25	Digital Logic	27-00-2023	
Test-26	Computer Organization and Architecture	04-07-2023	
Test-27	Computer Networks	04-07-2023	
Test-28	Theory of Computation	11-07-2023	
Test-29	Operating System	11-07-2023	
Test-30	Algorithms	18-07-2023	
Test-31	Databases	18-07-2023	
Test-32	Compiler Design	25-07-2023	
Test-33	Programming and Data Structures	25-07-2023	
Test-34	General Aptitude	01-08-2023	

	<b>Full Length Mock Test - 1<sup>st</sup> Series</b> (No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)	
Test-35	Full Length Mock Test-1	15-08-2023
Test-36	Full Length Mock Test-2	22-08-2023
Test-37	Full Length Mock Test-3	29-08-2023
Test-38	Full Length Mock Test-4	12-09-2023
Test-39	Full Length Mock Test-5	19-09-2023
Test-40	Full Length Mock Test-6	26-09-2023

	Multi-Subject Wise Grand Tests (No.of Questions: 30, Time duration: 83 Minutes and Marks: 50 M)	
Test-41	Programming and Data Structures	03-10-2023
Test-42	Computer Organization and Architecture and Digital Logic	05-10-2025
Test-43	Theory of Computation and Compiler Design	10-10-2023
Test-44	Computer Networks and Databases	10-10-2023
Test-45	Operating System and Algorithms	17-10-2023
Test-46	Engineering Mathematics and General Aptitude	17-10-2025
Test-47	Programming Languages & Data Structures, Computer Organization, Digital Logic & Computer Networks and Network Security	20-10-2023
Test-48	Theory of Computation, Compiler Design, Operating Systems, Algorithms & Database	20-10-2023

Test No	Name of the Test	Date of Activation
	<b>Full Length Mock Test - 2<sup>nd</sup> Series</b> (No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)	
Test-49	Full Length Mock Test-7	31-10-2023
Test-50	Full Length Mock Test-8	07-11-2023
Test-51	Full Length Mock Test-9	28-11-2023
Test-52	Full Length Mock Test-10	05-12-2023
Test-53	Full Length Mock Test-11	02-01-2024
Test-54	Full Length Mock Test-12	09-01-2024

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## **Free Practice Tests**

#### **Topic wise Tests**

#### (No.of Questions: 15, Time duration: 42 Minutes and Marks: 25 M)

Test No	(No.of Questions: 15, Time duration: 42 Minutes and Marks: 25 M) Name of the Test	Date of Activation
Test-01	<ul> <li>Engineering Mathematics-1:</li> <li>Linear Algebra: Matrices, determinants, system of linear equations, eigenvalues and eigenvectors, LU decomposition.</li> <li>Calculus: Limits, continuity and differentiability. Maxima and minima. Mean value theorem. Integration.</li> <li>Probability and Statistics: Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem.</li> </ul>	
Test-02	<b>Engineering Mathematics-2:</b> Discrete Mathematics: Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Monoids, Groups	
Test-03	Engineering Mathematics-3: Discrete Mathematics: Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.	
Test-04	Digital Logic-1: Number Systems,Boolean Expression, Boolean Laws & K-maps	~
Test-05	<b>Digital Logic-2:</b> Combinational Circuits, Multiplex & De-Multiplex, Sequential Circuits & Counters	-2023
Test-06	<b>Computer Organization and Architecture-1:</b> Computer Arithmetic, Memory Organization (Cache, Main & Secondary Storage).	0-03-202
Test-07	<b>Computer Organization and Architecture-2:</b> Instruction Pipelining, Pipeline Hazards, Control Unit Design( H/W & Micro Programmed Control, ALU & Data Path), Machine Instructions & Addressing Modes, I/O Interface (Interrupt and DMA mode), Serial Communication Interface.	7
Test-08	<b>Computer Networks-1:</b> Concept of layering: OSI and TCP/IP Protocol Stacks; Basics of packet, circuit and virtual circuit-switching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging	
Test-09	<b>Computer Networks-2:</b> Routing protocols: shortest path, flooding, distance vector and link state routing; Fragmentation and IP addressing, IPv4, CIDR notation, Basics of IP support protocols (ARP, DHCP, ICMP), Network Address Translation (NAT); Transport layer: flow control and congestion control, UDP, TCP, sockets; Application layer protocols: DNS, SMTP, HTTP, FTP, Email.	

Test No	Name of the Test	Date of Activatior
Test-10	<b>Theory of Computation-1:</b> Finite automata(DFA,NFA), Regular languages, Regular expression,closure properties of regular sets, pumping lemma. FA WITH OUTPUT, PDA,DPDA. Cfg, Normalisation of Cfg,Dcfl, CFL, closure properties.	
Test-11	<b>Theory of Computation-2:</b> Turning machine, Recursive languages, REL, closure properties of REL, LBA,Csl,closure properties Of csl, Decidable and undecidable/computability, Complexity.	
Test-12	<b>Operating System-1:</b> Introduction,Process Management,System Calls, Synchronization and Concurrency Control, CPU Scheduling, Deadlocks	
Test-13	<b>Operating System-2:</b> Memory Management, I/O scheduling, File Systems,	
Test-14	Algorithms-1: Algorithm Analysis & Asymptotic Notations,Divide and Conquer, Greedy Method	
Test-15	Algorithms-2: Dynamic Programming,Graph Techniques.	
Test-16	Database-1: ER Diagrams, FD, Normalization, RA & RC	
Test-17	Database-2: SQL, Transaction concurrency, Indexing (e.g., B and B+ trees), Recovery System.	)23
Test-18	<b>Compiler Design:</b> Lexical Analysis & Parsing ,Semantic Analysis(SDT), Intermediate code generation, Basics of Optimization	-03-2023
Test-19	<b>Programming and Data Structures-1:</b> Programming in C,Recursion;Arrays, Stacks , Queues, Linked Lists, Trees, Graphs & Hashing	20-0
Test-20	<b>Programming and Data Structures-2:</b> Programming in C; Recursion, Arrays, Stacks, Queues, Linked Lists, Trees, Graphs & Hashing	
Test-21	Verbal Ability: Basic English grammar: tenses, articles, adjectives, prepositions, conjunctions, verb-noun agreement, and other parts of speech. Basic vocabulary: words, idioms, and phrases in context. Reading and comprehension. Narrative sequencing.	
Test-22	Quantitative Aptitude: Data interpretation: data graphs (bar graphs, pie charts, and other graphs representing data), 2- and 3-dimensional plots, maps, and tables. Numerical computation and estimation: ratios, percentages, powers, exponents and logarithms, permutations and combinations, and series Mensuration and geometry. Elementary statistics and probability.	
Test-23	Analytical Aptitude: Logic: deduction and induction, Analogy, Numerical relations and reasoning Spatial Aptitude: Transformation of shapes: translation, rotation, scaling, mirroring, assembling, and grouping Paper folding, cutting, and patterns in 2 and 3 dimensions	

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Test No	Name of the Test	Date of Activation
	Subject Wise Grand Tests	
	(No.of Questions: 30, Time duration: 83 Minutes and Marks: 50 M)	
Test-24	Engineering Mathematics	
Test-25	Digital Logic	
Test-26	Computer Organization and Architecture	<b>m</b>
Test-27	Computer Networks	2
Test-28	Theory of Computation	50
Test-29	Operating System	
Test-30	Algorithms	
Test-31	Databases	25-03-2023
Test-32	Compiler Design	<b>N</b>
Test-33	Programming and Data Structures	
Test-34	General Aptitude	-
	Multi-Subject Wise Grand Tests	
	(No.of Questions: 30, Time duration: 83 Minutes and Marks: 50 M)	
Test-35	Programming and Data Structures	
Test-36	Computer Organization and Architecture and Digital Logic	<b>m</b>
Test-37	Theory of Computation and Compiler Design	
Test-38	Computer Networks and Databases	2023
Test-39	Operating System and Algorithms	
Test-40	Engineering Mathematics and General Aptitude	03
Test-41	Programming Languages & Data Structures, Computer Organization, Digital Logic & Computer Networks and Network Security	25-0
Test-42	Theory of Computation, Compiler Design, Operating Systems, Algorithms & Database	
	Full Length Mock Tests	
	(No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)	
Test-43	Full Length Mock Test-1	_
Test-44	Full Length Mock Test-2	-
Test-45	Full Length Mock Test-3	<b>m</b>
Test-46	Full Length Mock Test-4	2
Test-47	Full Length Mock Test-5	5
Test-48	Full Length Mock Test-6	4
Test-49 Test-50	Full Length Mock Test-7 Full Length Mock Test-8	ő
Test-50	Full Length Mock Test-8	01-04-2023
Test-51	Full Length Mock Test-10	0
1050 52		

Full Length Mock Test-7 Test-49 Test-50 Full Length Mock Test-8 Full Length Mock Test-9 Test-51 Full Length Mock Test-10 Test-52 Full Length Mock Test-11 Test-53

Full Length Mock Test-12

Test-54