

GATE - 2023

# **ONLINE TEST SERIES**

SCHEDULE - COMPUTER SCIENCE ENGINEERING

Number of Tests

Topic Wise Subject Wise Mock Test MSQ Total
44 25 12 11 92

#### **TOPIC WISE TESTS**

- > Each test carries 25 marks and 45 minutes duration
- > Test consists of 5 one mark questions and 10 two marks questions

Test No	Test Name: Syllabus	DATE OF ACTIVATION
CS-01	<b>Basic Level Discrete Mathematics - 1 :</b> Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Groups. Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.	Available Now
CS-02	Basic Level Discrete Mathematics - 2: 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: Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem.	Available Now
CS-03	Basic Level Digital Logic – 1 : Boolean algebra. Combinational and sequential circuits. Minimization.	Available Now
CS-04	Basic Level Digital Logic - 2: Number representations and computer arithmetic (fixed and floating point).	Available Now
CS-05	<b>Basic Level Computer Organization and Architecture - 1 :</b> Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).	Available Now
CS-06	Basic Level Computer Organization and Architecture - 2 : Machine instructions and addressing modes. ALU, data-path and control unit.	Available Now
CS-07	Basic Level Programming and Data Structures - 1 : Programming in C. Recursion. Arrays, stacks, queues	Available Now
CS-08	Basic Level Programming and Data Structures - 2: linked lists, trees, binary search trees, binary heaps, graphs	Available Now
CS-09	<b>Basic Level Algorithms – 1 :</b> Asymptotic worst case time and space complexity. Algorithm design techniques: greedy, divide and conquer.	Available Now
CS-10	Basic Level Algorithms – 2: Searching, sorting, hashing, dynamic programming Graph search, minimum spanning trees, shortest paths	Available Now
CS-11	Basic Level Theory of Computation - 1 : Regular expressions and finite automata. Context-free grammars and push-down automata.	Available Now

Test No	Test Name : Syllabus	DATE OF ACTIVATION
CS-12	Basic Level Theory of Computation - 2 : Regular and contex-free languages, pumping lemma. Turing machines and undecidability.	Available Now
CS-13	Basic Level Compiler Design – 1 : Lexical analysis, parsing	Available Now
CS-14	Basic Level Compiler Design – 2 : Syntax-directed translation. Runtime environments. Intermediate code generation.	Available Now
CS-15	Basic Level Operating System - 1 : Processes, threads, inter-process communication, concurrency and synchronization. CPU scheduling.	Available Now
CS-16	Basic Level Operating System - 2: Deadlock. Memory management and virtual memory. File systems.	Available Now
CS-17	<b>Basic Level Database – 1 :</b> ER-model. Relational model: relational algebra, tuple calculus.Integrity constraints, normal forms.	Available Now
CS-18	<b>Basic Level Database – 2 :</b> SQL, File organization, indexing (e.g., B and B+ trees). Transactions and concurrency control.	Available Now
CS-19	Basic Level Computer Networks & Network Security – 1: Concept of layering. LAN technologies (Ethernet). Flow and error control techniques, switching. IPv4/IPv6, routers and routing algorithms (distance vector, link state).	Available Now
CS-20	<b>Basic Level Computer Networks &amp; Network Security – 2 :</b> TCP/UDP and sockets, congestion control. Application layer protocols (DNS, SMTP, POP, FTP, HTTP). Basics of Wi-Fi. Network security: authentication, basics of public key and private key cryptography, digital signatures and certificates, firewalls.	Available Now
CS-21	<b>Basic Level General Aptitude - 1:</b> English grammar, sentence completion, verbal analogies, word groups, instructions, critical reasoning and verbal deduction.	Available Now
CS-22	<b>Basic Level General Aptitude - 2 :</b> Numerical computation, numerical estimation, numerical reasoning and data interpretation.	Available Now
CS-23	<b>Advance Level Discrete Mathematics - 1 :</b> Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Groups. Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.	Available Now
CS-24	Advance Level Discrete Mathematics - 2: 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: Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem.	Available Now
CS-25	Advance Level Digital Logic - 1: Boolean algebra. Combinational and sequential circuits. Minimization.	Available Now
CS-26	Advance Level Digital Logic - 2: Number representations and computer arithmetic (fixed and floating point).	Available Now
CS-27	Advance Level Computer Organization and Architecture - 1: Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).	Available Now

Test No	TEST NAME: SYLLABUS	DATE OF ACTIVATION
CS-28	Advance Level Computer Organization and Architecture - 2:  Machine instructions and addressing modes. ALU, data-path and control unit.	Available Now
CS-29	Advance Level Programming and Data Structures - 1: Programming in C. Recursion. Arrays, stacks, queues	Available Now
CS-30	Advance Level Programming and Data Structures - 2: linked lists, trees, binary search trees, binary heaps, graphs	Available Now
CS-31	Advance Level Algorithms - 1 : Asymptotic worst case time and space complexity. Algorithm design techniques: greedy, divide and conquer	Available Now
CS-32	Advance Level Algorithms - 2: Searching, sorting, hashing, dynamic programming, Graph search, minimum spanning trees, shortest paths.	Available Now
CS-33	<b>Advance Level Theory of Computation - 1 :</b> Regular expressions and finite automata. Context-free grammars and push-down automata.	Available Now
CS-34	Advance Level Theory of Computation - 2 : Regular and contex-free languages, pumping lemma. Turing machines and undecidability.	Available Now
CS-35	Advance Level Compiler Design - 1 : Lexical analysis, parsing.	Available Now
CS-36	Advance Level Compiler Design - 2 : Syntax-directed translation. Runtime environments. Intermediate code generation.	Available Now
CS-37	Advance Level Operating System - 1 : Processes, threads, inter-process communication, concurrency and synchronization, CPU scheduling	Available Now
CS-38	Advance Level Operating System - 2 : Deadlock. Memory management and virtual memory. File systems.	Available Now
CS-39	Advance Level Database - 1 : ER-model. Relational model: relational algebra, tuple calculus, Integrity constraints, normal forms.	Available Now
CS-40	<b>Advance Level Database - 2 :</b> SQL, File organization, indexing (e.g., B and B+ trees). Transactions and concurrency control.	Available Now
CS-41	Advance Level Computer Networks & Network Security – 1: Concept of layering. LAN technologies (Ethernet). Flow and error control techniques, switching. IPv4/IPv6, routers and routing algorithms (distance vector, link state).	Available Now
CS-42	Advance Level Computer Networks & Network Security – 2:  TCP/UDP and sockets, congestion control. Application layer protocols (DNS, SMTP, POP, FTP, HTTP). Basics of Wi-Fi. Network security: authentication, basics of public key and private key cryptography, digital signatures and certificates, firewalls.	Available Now
CS-43	Advance Level General Aptitude - 1: English grammar, sentence completion, verbal analogies, word groups, instructions, critical reasoning and verbal deduction.	Available Now
CS-44	Advance Level General Aptitude - 2: Numerical computation, numerical estimation, numerical reasoning and data interpretation.	Available Now

## SUBJECT WISE TESTS

- Each test carries 50 marks and 90 minutes duration
- > Test consists of 10 one mark questions and 20 two marks questions

Test No	Test Name : Syllabus	DATE OF ACTIVATION
CS-45	Basic Level Discrete Mathematics:  Discrete Mathematics: Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Groups. Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.  Linear Algebra: Matrices, determinants, system of linear equations, Eigen values and eigenvectors, LU decomposition.  Calculus: Limits, continuity and differentiability. Maxima and minima. Mean value theorem. Integration.  Probability: Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem.	Available Now
CS-46	<b>Basic Level Digital Logic :</b> Boolean algebra. Combinational and sequential circuits. Minimization. Number representations and computer arithmetic (fixed and floating point).	Available Now
CS-47	Basic Level Computer Organization and Architecture: Machine instructions and addressing modes. ALU, data path and control unit. Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).	Available Now
CS-48	<b>Basic Level Programming and Data Structures :</b> Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.	Available Now
CS-49	<b>Basic Level Algorithms:</b> Searching, sorting, hashing. Asymptotic worst case time and space- complexity Algorithm design techniques: greedy, dynamic programming and divide and conquer. Graph search, minimum spanning trees, shortest paths.	Available Now
CS-50	<b>Basic Level Theory of Computation :</b> Regular expressions and finite automata. Context-free grammars and push-down automata. Regular and contex-free languages, pumping lemma. Turing machines and undecidability.	Available Now
CS-51	<b>Basic Level Compiler Design :</b> Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation.	Available Now
CS-52	Basic Level Operating System : Processes, threads, inter process communication, concurrency and synchronization. Deadlock. CPU scheduling. Memory management and virtual memory. File systems.	Available Now
CS-53	<b>Basic Level Database :</b> ER model. Relational model: relational algebra, tuple calculus, SQL. Integrity constraints, normal forms. File organization, indexing (e.g., B and B+ trees). Transactions and concurrency control.	Available Now
CS-54	Basic Level Computer Networks & Network Security: Concept of layering. LAN technologies (Ethernet). Flow and error control techniques, switching. IPv4/IPv6, routers and routing algorithms (distance vector, link state). TCP/UDP and sockets, congestion control. Application layer protocols (DNS, SMTP, POP, FTP, HTTP). Basics of Wi-Fi. Network security: authentication, basics of public key and private key cryptography, digital signatures and certificates, firewalls.	Available Now

Test No	TEST NAME: SYLLABUS	DATE OF ACTIVATION
CS-55	<b>Basic Level General Aptitude:</b> English grammar, sentence completion, verbal analogies, word groups, instructions, critical reasoning and verbal deduction, Numerical computation, numerical estimation, numerical reasoning and data interpretation.	Available Now
CS-56	Advance Level Discrete Mathematics:  Discrete Mathematics: Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Groups. Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.  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: Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem	Available Now
CS-57	Advance Level Digital Logic & Computer Organization and Architecture:  Boolean algebra. Combinational and sequential circuits. Minimization. Number representations and computer arithmetic (fixed and floating point).  Machine instructions and addressing modes. ALU, data path and control unit. Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).	Available Now
CS-58	Advance Level Programming and Data Structures:  Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.	Available Now
CS-59	Advance Level Algorithms & Database:  Searching, sorting, hashing. Asymptotic worst case time and space- complexity  Algorithm design techniques: greedy, dynamic programming and divide and conquer.  Graph search, minimum spanning trees, shortest paths.  ER model. Relational model: relational algebra, tuple calculus, SQL. Integrity constraints, normal forms. File organization, indexing (e.g., B and B+ trees).  Transactions and concurrency control.	Available Now
CS-60	Advance Level Theory of Computation & Compiler Design:  Regular expressions and finite automata. Context-free grammars and push-down automata. Regular and contex-free languages, pumping lemma. Turing machines and undecidability.  Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation.	Available Now

Test No	Test Name: Syllabus	DATE OF ACTIVATION
CS-61	Advance Level Operating System & Computer Networks & Network Security:  Processes, threads, inter process communication, concurrency and synchronization.  Deadlock. CPU scheduling. Memory management and virtual memory. File systems  Concept of layering. LAN technologies (Ethernet). Flow and error control techniques, switching. IPv4/IPv6, routers and routing algorithms (distance vector, link state).  TCP/UDP and sockets, congestion control. Application layer protocols (DNS, SMTP, POP, FTP, HTTP). Basics of Wi-Fi. Network security: authentication, basics of public key and private key cryptography, digital signatures and certificates, firewalls.	Available Now
CS-62	Advance Level General Aptitude: English grammar, sentence completion, verbal analogies, word groups, instructions, critical reasoning and verbal deduction, Numerical computation, numerical estimation, numerical reasoning and data interpretation.	Available Now
CS-63	Discrete Mathematics:  Discrete Mathematics: Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Groups. Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.  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: Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem.	Available Now
CS-64	Digital Logic & Computer Organization and Architecture:  Boolean algebra. Combinational and sequential circuits. Minimization. Number representations and computer arithmetic (fixed and floating point).  Machine instructions and addressing modes. ALU, data path and control unit. Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).	Available Now
CS-65	<b>Programming and Data Structures :</b> Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.	Available Now
CS-66	Algorithms & Database:  Searching, sorting, hashing. Asymptotic worst case time and space- complexity Algorithm design techniques: greedy, dynamic programming and divide and conquer. Graph search, minimum spanning trees, shortest paths.  ER model. Relational model: relational algebra, tuple calculus, SQL. Integrity constraints, normal forms. File organization, indexing (e.g., B and B+ trees). Transactions and concurrency control.	Available Now

Test No	Test Name : Syllabus	DATE OF ACTIVATION
CS-67	Theory of Computation & Compiler Design:  Regular expressions and finite automata. Context-free grammars and push-down automata. Regular and contex-free languages, pumping lemma. Turing machines and undecidability.  Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation.	Available Now
CS-68	Operating System & Computer Networks & Network Security:  Processes, threads, inter process communication, concurrency and synchronization.  Deadlock. CPU scheduling. Memory management and virtual memory. File systems  Concept of layering. LAN technologies (Ethernet). Flow and error control techniques, switching. IPv4/IPv6, routers and routing algorithms (distance vector, link state).  TCP/UDP and sockets, congestion control. Application layer protocols (DNS, SMTP, POP, FTP, HTTP). Basics of Wi-Fi. Network security: authentication, basics of public key and private key cryptography, digital signatures and certificates, firewalls.	Available Now
CS-69	<b>General Aptitude :</b> English grammar, sentence completion, verbal analogies, word groups, instructions, critical reasoning and verbal deduction, Numerical computation, numerical estimation, numerical reasoning and data interpretation.	Available Now

### MOCK TESTS

> Each test carries 100 marks and 3 hours duration

Test No	Test Name	DATE OF ACTIVATION
CS-70	Full Syllabus Test - 1 (Basic Level)	Available Now
CS-71	Full Syllabus Test - 2 (Basic Level)	Available Now
CS-72	Full Syllabus Test - 3 (Basic Level)	Available Now
CS-73	Full Syllabus Test - 1 (Advance Level)	Available Now
CS-74	Full Syllabus Test - 2 (Advance Level)	Available Now
CS-75	Full Syllabus Test - 3 (Advance Level)	Available Now
CS-76	GATE MOCK TEST - 1	Available Now
CS-77	GATE MOCK TEST - 2	Available Now
CS-78	GATE MOCK TEST - 3	Available Now
CS-79	GATE MOCK TEST - 4	Available Now
CS-80	GATE MOCK TEST - 5	Available Now
CS-81	GATE MOCK TEST - 6	Available Now

# MSQ TYPE TESTS (Subject Wise)

Each test carries 40 marks and 60 Minutes duration

Test No	TEST NAME	DATE OF ACTIVATION
CS - 82	General Aptitude	Available Now

#### **MSQ TYPE TESTS (Topic Wise)**

➤ Each test carries 25 marks and 45Minutes duration

Test No	TEST NAME	DATE OF ACTIVATION
CS - 83	Discrete Mathematics	Available Now
CS - 84	Programming and Data Structures	Available Now
CS - 85	Algorithms	Available Now
CS - 86	C,DS and Algorthms	Available Now
CS - 87	Computer Networks	Available Now
CS - 88	Operating Systems	Available Now
CS - 89	Computer Organization And Architecture	Available Now
CS - 90	Theory Of Computation	Available Now
CS - 91	Data Base Management Systems	Available Now
CS - 92	Compiler Design	Available Now