

SANJIVANI UNIVERSITY

School of Engineering and Technology

Sanjivani University Entrance Test – 2024

1) Syllabus for Engineering and Technology

Whole syllabus of Std XI and Std XII of 2023-24 of Physics, Chemistry, and Mathematics subjects prescribed by State Council of Educational Research And Training, Maharashtra

Refer MHCET PCM portal for the detailed syllabus.

Examination pattern:-

Subject	No. of Questions	Maximum Marks	Total Marks	Time Duration
Physics	25	25	100 Marks	90 Minutes
Chemistry	25	25		
Mathematics	25	50		

- The test will comprise of multiple choice objective type questions (Four Option)
- There is no negative marking system for the test
- Medium of Exam: English
- Mode of Examination – Computer Based Test
- Venue: Sanjivani University Kopergaon. (Sanjivani Group of institutes Main Campus)

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School of Commerce and Management

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2) Syllabus and examination pattern for BBA (International Business & Technology)

Topic	No. of Questions	Maximum Marks	Total Marks	Time Duration
<u>English Language:</u> Passage Analysis - Grammar and Usage - Parts of Speech- Sentence Structure- Tenses and Verb Forms - Common Errors – Vocabulary- Word Knowledge- Contextual Understanding – Synonyms – antonyms- similar to language skills	25	25	100 Marks	90 minutes
<u>Reasoning:</u> Logical Deduction- Critical Reasoning- Analogies- Series and Sequences- Odd One Out- Puzzles- Pattern Recognition- Series and Sequences- Analogies- Classification- Data Interpretation- Logical Games and Puzzles- similar reasoning questions	25	25		
<u>General knowledge & awareness:</u> Current Affairs - National News- International News – Sports- Awards and Honors- Science and Technology- Economy and Business - Indian History- Geography- Polity – Economy- Science- Important Days and Dates- Books and Authors- Art and Culture- Inventions and Discoveries – organizations similar general knowledge questions.	25	25		
<u>Computer Basics:</u> Basic Components of a Computer - Hardware and Software - Operating Systems - Office Applications - Word Processing – Spreadsheets – Databases- Internet and Networking – Cybersecurity- Multimedia - similar computer based questions.	25	25		

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3) Syllabus and examination pattern for MBA

Topic	No. of Questions	Maximum Marks	Total Marks	Time Duration
<u>English Language:</u> Passage Analysis - Grammar and Usage - Parts of Speech- Sentence Structure- Tenses and Verb Forms - Common Errors – Vocabulary- Word Knowledge- Contextual Understanding – Synonyms – antonyms- similar to language skills	20	20	100 Marks	90 minutes
<u>Reasoning:</u> Logical Deduction- Critical Reasoning- Analogies- Series and Sequences- Odd One Out- Puzzles- Pattern Recognition- Series and Sequences- Analogies- Classification- Data Interpretation- Logical Games and Puzzles- similar reasoning questions	20	20		
<u>General knowledge & awareness:</u> Current Affairs - National News- International News – Sports- Awards and Honors- Science and Technology- Economy and Business - Indian History- Geography- Polity – Economy- Science- Important Days and Dates- Books and Authors- Art and Culture- Inventions and Discoveries – organizations similar general knowledge questions.	20	20		
<u>Computer Basics:</u> Basic Components of a Computer - Hardware and Software - Operating Systems - Office Applications - Word Processing – Spreadsheets – Databases- Internet and Networking – Cybersecurity- Multimedia - similar computer based questions.	20	20		
<u>Business Affairs:</u> Types of Business Organizations- Basics terms in Finance & Banking - Marketing Management – CEO’s- similar business affairs questions.	20	20		

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4) Syllabus and examination pattern for M. Tech. (CSE)

Topic	No. of Questions	Maximum Marks	Total Marks	Time Duration
<u>Digital Logic:</u> Boolean algebra. Combinational and sequential circuits. Minimization. Number representations and computer arithmetic (fixed and floating point).	05	10	100 Marks	90 minutes
<u>Computer Organization:</u> Machine instructions and addressing modes. ALU, data-path and control unit. Instruction pipelining, pipeline hazards. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).	05	10		
<u>Data Structure and Algorithm:</u> Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs. Searching, sorting, hashing. Asymptotic worst case time and space complexity. Algorithm design techniques: greedy, dynamic programming and divide-and-conquer. Graph traversals, minimum spanning trees, shortest paths	10	20		
<u>Theory of Computation:</u> Regular expressions and finite automata. Context-free grammars and push-down automata. Regular and context-free languages, pumping lemma. Turing machines and undecidability.	05	10		
<u>Operating Systems:</u> System calls, processes, threads, inter-process communication, concurrency and synchronization. Deadlock. CPU and I/O scheduling. Memory management and virtual memory. File systems.	10	20		
<u>Computer Network:</u> OSI and TCP/IP Protocol Stacks, circuit and virtual circuit-switching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging; Routing protocols; 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; DNS, SMTP, HTTP, FTP, Email.	10	20		
<u>Database:</u> 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.	05	10		

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- Medium of Exam: English