Prahladrai Dalmia Lions College of Commerce & Economics

ISO 21001:2018

BSc.CS (Computer Science)

Syllabus for Class Test, (CIA), JANUARY, 2026

SYBSc.CS SEMESTER - IV - NEP

Date - 16/12/2025

Sr. No.	Name of the Course	Name of the Professor	Portion/ syllabus
1	Computer Networks	Mr. Prathamesh Bhosle	Introduction to Computer Networks: Networking standards and organizations (ISO, IEEE, IETF), Types of Networks: LAN, MAN, WAN, Network topologies and basic hardware Network Models: OSI Reference Model – layers, functions, TCP/IP Protocol Suite – layers and comparison with OSI, Switching Techniques: Circuit Switching, Packet Switching (connectionless and connection-oriented), Wired & Wireless LANs: Ethernet (standard, fast, gigabit). IEEE 802.11 Wi-Fi, Bluetooth, WiMAX, Cellular telephony: Generations overview (2G–5G), Satellite networks: types and applications, Transmission Media: Guided (Twisted Pair, Coaxial, Fiber Optics) & Unguided Media (Radio, Microwave, Infrared)
2	IoT Technologies	Ms. Trupti Asolkar	Module 1- Chpt 1,2,3,4,5
3	Environmental Management & Sustainable Development -II	Ms. Mona Seth	Understanding pollution: Production processes and generation of wastes; Assimilative capacity of the environment; Definition of pollution; Point sources and non-point sources of pollution. Air pollution: Sources of air pollution; Primary and secondary pollutants; Criteria pollutants carbon monoxide, lead, nitrogen oxides, ground-level ozone, particulate matter and Sulphur dioxide; Other important air pollutants- Volatile Organic compounds (VOCs), Peroxyacetyl Nitrate (PAN), Polycyclic aromatic hydrocarbons (PAHs) and Persistent organic pollutants (POPs); Indoor air pollution; Adverse health impacts of air pollutants; National Ambient Air Quality Standards. Water pollution: Sources of water pollution; River, lake and marine pollution, groundwater pollution; water quality parameters and standards; adverse health impacts of water pollution on human and aquatic life. Soil pollution and solid waste: Soil pollutants and their sources; Solid and hazardous waste; Impact on human health. Noise pollution: Definition of noise; Unit of measurement of noise pollution; Sources of noise pollution; Noise standards; adverse impacts of noise on human health. Thermal and Radioactive pollution: Sources and impact on human health and ecosystems.
4	Linear Algebra	Mr. Sujal Shah	Simple Matrix operations, Solution of Algebraic Equations
5	Software Engineering	Ms. Sonia Pelagade	Introduction to Software Engineering: Nature of Software, Software Engineering: Principles and Practice, Software Process Framework, Layered Technology, Process Framework, Process Patterns, Capability Maturity Model (CMM), Process Assessment Software Development Models: Prescriptive Models: Waterfall, Incremental, Rapid Application Development (RAD), Evolutionary Models: Prototyping, Spiral Model, Specialized Models: Component-Based Development, Aspect-Oriented Development, Agile Development: Agile Manifesto, Extreme Programming (XP), Scrum Overview

Ms. Sneha Hathi
In- Charge - BSc Computer Science

CA. Durgesh Kenkre
Exam Convener

Ms. Subhashini Naikar
(Vice-Principal, SFC)

Prof.(Dr). D.N.Ganjewar
Principal

DI/N-STD/GEN/00