



Prahladrai Dalmia Lions College of Commerce & Economics

(Government Aided & Affiliated to University of Mumbai & AICTE, New Delhi)

NAAC Re- accredited with 'A' Grade (III Cycle)

ISO 21001: 2018 Certified

University of Mumbai Recognized Research Centre in Accountancy,
Commerce & Business Economics

A Government Approved Hindu Linguistic Minority Institute

52 Years of Sterling Performance in Education

Date: 7th August, 2026

NOTICE

BSc. (COMPUTER SCIENCE)

FY / SY / TY BSC.CS (Semester I / III / V)

CIA Internal Project Assignment Submission September, 2026

Instructions for the students for internals projects submission:

1. Date & Time of Assignment Submission - **As per the time table given below.**
2. Students have to be present in person for the submission.
3. Internal project topics are also uploaded on the college website.
4. Submission of projects or assignments to be done on proper A4 size paper, handwritten by the candidate himself only.
5. The Front page should contain details of Roll no, Name of the student, Semester, Subject along with certificate provided by the class mentors.
6. If the student fails to present himself on the given date and time he will be marked **ABSENT** for the said subject.
7. Any Submissions after the above mentioned date and time will not be accepted and entertained under any circumstances.

Ms. Sneha Hathi
Co ordinator - BSc Computer
Science

Ms. Subhashini Naikar
(Vice-Principal, SFC)

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

DI/R-IPS/EXAM/00

Schedule of VIVA VOCE

FYBSc. CS

Sr. No	Date	Day	Time	Name of Course	Name of Faculty
1.	31/08/2026	Monday	11:30 to 1:30 pm 2.00 to 3.00 pm	1. Indian Constitution 2. Indian Knowledge System	Dr. Malvika Khajuria Ms. Mohini Nadkarni
2.	1/09/2026	Tuesday	9.20 to 11.20 am	1. Entrepreneurship Management	Dr. Sneha Hathi
3.	2/09/2026	Wednesday	11.30 to 1.30 pm	1. Environmental Management & Sustainable Development -I	Ms. Neeti Joshi
4.	3/09/2026	Thursday	11.30 to 1.30 pm	1. Digital Systems & Architecture	Ms. Prachi Sanghvi
5.	4/09/2026	Friday	12.30 to 1.30 pm	1. Communication Skills in English I	Ms. Farzin Dalal
6.	5/09/2026	Saturday	2.00 to 4.00 pm	1. Fundamentals of Database Systems	Ms. Niyati Kalyanpur

Schedule of VIVA VOCE

SYBSc. CS

Sr. No	Date	Day	Time	Name of Course	Name of Faculty
1.	31/08/2026	Monday	7:00 to 9:00 am 9.20 to 11.20 am	1. Statistical Methods -I 2. Financial-Literacy	Mr. Aditya M Dr. Sneha Hathi
3.	2/09/2026	Wednesday	9.20 to 11.20 am 11.30 to 1.30 pm	1. Hindi 2. Theory of Computation	Ms. Tejasvi Shiroya Mr. Sujal Shah
4.	3/09/2026	Thursday	9.20 to 10.20 am	1. Data Structures	Ms. Prachi Sanghvi
5.	4/09/2026	Friday	9.20 to 10.20 am	1. Principles of Operating Systems	Ms. Sonia Pelagade

Schedule of VIVA VOCE

TYBSc. CS

Sr. No	Date	Day	Time	Name of Course	Name of Faculty
1.	1/09/2026	Tuesday	9.20 to 10.20 am 10.20 to 11.20 am 11.30 to 12.30 pm	1. Software Testing & Quality Assurance 2. Artificial Intelligence 3. Cyber & Information Security	Ms. Prachi Sanghvi Ms. Sonia Pelagade Mr. Prathamesh Bhosle
2.	2/09/2026	Wednesday	8:00 to 9:00 am	1. IKS in Computational Systems	Mr. Sujal Shah



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Subject: Software Testing & Quality Assurance

TYBSc. CS - Semester V

ASSIGNMENT 1

TOPIC	s
Errors And Its Way To Find , Test Case Design And Techniques	1,2
Black Box Testing	3,4
Sdlc And Its Phases	5,6
Sdlc Testing Phases	7,8
Quality And Quality Assurance	9,10
Compare B/W Qa,Qc,Qm,Sqa	11,12
Verification And Its Significance ,Mechanisms	13,14
Validation And Its Significance ,Mechanisms	15,16
Concepts Of Software Testing Strategies	17,18
White Box Testing	19,20
Defect Management	21,22

Minimum 10 slides are required. (excluding introduction slide)

Subject: Artificial Intelligence

TYBSc. CS - Semester V

ASSIGNMENT 1

1. What is AI give the foundations and history of AI.
2. Define an agent. Explain role of agent program.
3. What is problem solving. Explain with steps.
4. Explain A* algorithm with graph.
5. What are the heuristic functions. Explain with the 8 puzzle program.

ASSIGNMENT 2

1. Explain the various forms of learning with respect to ML.
2. Explain decision trees with an example.
3. Explain the Naïve Bayes theorem.
4. What is Artificial Neural Networks.
5. Explain the k-NN model with example.

Subject: Cyber & Information Security

TYBSc. CS - Semester V

ASSIGNMENT 1

1. Explain the **CIA Triad** (Confidentiality, Integrity, Availability) with real-world
2. Explain the **OSI Security Architecture**.
3. Differentiate between **Security Services and Security Mechanisms**.
4. Explain any five security services.
5. Explain **Interruption, Interception, Modification and Fabrication** attacks.
6. Encrypt **HELLO WORLD** using Caesar Cipher with shift 5.
7. Solve a simple Hill Cipher encryption problem. - Message is "HELLO" [5:4 3:5]
8. Encrypt **INFORMATION** using Vigenère Cipher with key **KEY**.
9. Encrypt a given message using Playfair Cipher. - Meet me now
10. Explain the structure of **DES**.
11. Compare **DES and AES**.
12. Compare different **Block Cipher Modes of Operation**.
13. Explain the working of **HMAC** with a suitable diagram.
14. Solve an RSA problem with given p,q,e,M.
15. Explain the **Diffie-Hellman Key Exchange algorithm**.
16. Explain the difference between **Symmetric and Asymmetric Encryption**.
17. Solve a Diffie-Hellman problem for given q, α ,XA, XB
18. Explain the **Man-in-the-Middle attack** on Diffie-Hellman.
19. Explain the difference between **Hash, MAC and Digital Signature**.
20. Explain **SHA**.
21. Encrypt the following message using a **Columnar Transposition Cipher** with the key **CIPHER: INFORMATIONSECURITY**

ASSIGNMENT - 2

1. Define digital signature and explain its requirements.
2. Explain the working of a digital signature.

3. Explain how digital signatures provide non-repudiation.
4. What is an authentication protocol? Explain its importance.
5. Explain **challenge-response authentication**.
6. Explain **X.509 authentication protocol**.
7. Explain the role of Certificate Authority in PKI.
8. Differentiate between **Authentication, Authorization and Accounting**.
9. Explain the architecture of Kerberos.
10. Explain the role of **Ticket Granting Ticket (TGT)**.
11. Explain the architecture of PGP.
12. Compare **PGP and S/MIME**.
13. Explain the IPSec architecture. State its need.
14. Compare AH and ESP.
15. Explain various **Web Security threats**.
16. Differentiate between **Virus, Worm and Trojan Horse**.
17. Explain computer viruses and their characteristics.
18. Define intrusion and explain different types of intruders.
19. Define a firewall and explain its objectives.
20. List and explain the types of Firewall.