



Prahladrai Dalmia Lions College 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 Recognised Research Centre in Accountancy, Commerce & Business Economics
A Government Approved Hindi Linguistic Minority Institute

ATKT SEMESTE I

Internal Examination Oct., 2026.

BSc.(Information Technology), NEP BATCH

DATE - 17/10/2026

INSTRUCTIONS FOR THE STUDENTS HAVING ATKT IN INTERNALS:

1. Date of Submission of the Projects- 24th October, 2026 (Timings 11:00 am)
2. **Reporting time for students: at least 10 minutes before the mentioned time. Venue: 3rd floor staff room). Please meet Ms. Sonia Pelagade.**
3. Students have to be present in person for the submission.
4. Submission of projects to be done on proper A4 size paper, handwritten by the candidate himself only. The Front page should contain details of Roll no, Name of the student, Semester, Subject.
5. **Print out of the questions uploaded should be attached along with the project. Students should also enclose a photocopy of the ATKT fee paid receipt along with each of his projects.**
6. On the date of submission there will be a viva voce on the given questions/topics.
7. If the student fails to present himself on the given date and time he will be marked ABSENT for the said subject.
8. **Any Submissions after the above mentioned date and time will not be accepted and entertained under any circumstances.**
9. **Note: If students have any discrepancies in the below mentioned questions or any queries related to the same need to meet Dr. Rupali Mishra on or before 20 October, 2026.**

Dr. Rupali Mishra

(Coordinator - BSc.IT)

CA. Durgesh Kenkre

Exam Convener

Ms. Subhashini Naikar

Vice- Principal, SFC

Prof. (Dr.) D. N. Ganjewar

(Principal)

DI/N-STD/GEN/00

FYBSc.(I.T.) SEMESTER I ATKT INTERNAL PROJECT QUESTIONS

NOTE: Students shall attempt any five questions out of the same as per their subjects allocated and in which they have ATKT only in internals

1. Introduction to Cultural Activities

1. Define culture and explain its manifestations.
2. Explain cultural diversity and inclusivity with examples from India.
3. Discuss the role of cultural activities in preserving heritage.
4. Give an overview of Indian cultural practices.
5. Compare Indian cultural practices with any two global cultural practices.
6. Explain the role of student cultural activities and the role of AIU in preserving India's cultural heritage.
7. Describe the history of student cultural activities in Maharashtra and at the University of Mumbai.
8. Explain the applied skills involved in debate, elocution and story telling.
9. Explain the judging criteria for any two fine arts forms (e.g., painting, poster making, rangoli).
10. Write short notes on classical dance and folk dances of Maharashtra.

2. Indian Knowledge System

1. What is a knowledge system? Explain the characteristic features of the Indian Knowledge System.
2. Explain Macaulay's education policy and its impact on Indian education.
3. Why is there a need to revisit ancient Indian traditions?
4. Explain the universality and scope of IKS from earliest times to the 18th century CE.
5. Describe the ancient Indian education system: home, gurukul, pathashala and universities.
6. Explain the contribution of Ayurveda to medicine.
7. Write a note on ancient Indian mathematics and alchemy.
8. Explain the art of governance as described in the Arthashastra.
9. Discuss the water management system at Kanheri or the temple management of Ambarnath.
10. Select any one of the following and explain its significance: Yoga and Wellbeing, Natyashastra, Astronomy, Town Planning.

3. Indian Constitution

1. Explain the meaning and significance of a constitution.
2. What is the Preamble? Explain its importance.
3. Explain the main features of the Indian Constitution.
4. Explain the basic structure doctrine with a case law.
5. Explain any three Fundamental Rights (Articles 12–35).
6. What are the Fundamental Duties? Why are they important?
7. Explain the Directive Principles of State Policy.
8. Describe the powers and functions of the Supreme Court.
9. Describe the powers and functions of the High Court.
10. Explain Public Interest Litigation and Judicial Activism.

4. Communication Skills in English I

1. Explain English as an international language and its varieties.
2. Differentiate between verbal and non-verbal communication.
3. Explain the features of effective writing.
4. Describe the characteristics of an effective speech.
5. Explain effective listening skills and the barriers to them.
6. Differentiate between skimming and scanning with examples.

7. Explain how to guess the meaning of an expression and build inference skills.
8. Explain the steps in drafting and presenting a speech.
9. How would you open a conversation and introduce yourself and others formally and informally?
10. Draft a job application with a bio-data, or an RTI application.

5. Office Tools for Data Management (MS Access)

1. Explain the MS Access ribbon options and the main database objects.
2. Explain table creation, data types, integrity constraints and validation rules.
3. What is an input mask? Explain how to create one.
4. Explain the different ways of adding records in Access.
5. What are queries? Explain the types of queries in Access.
6. Explain action queries and crosstab queries.
7. How do you create a form using the Form Wizard? Explain subforms.
8. Explain the steps to create a report with grouping and sorting.
9. Explain one-to-one, one-to-many and many-to-many relationships with referential integrity.
10. Explain importing and exporting data, the Database Splitter and macros (AutoExec).

6. Environmental Management & Sustainable Development I

1. Explain the structure and functions of an ecosystem.
2. Explain energy flow, food chains and food webs.
3. Describe any one ecosystem (forest, grassland, desert or aquatic).
4. Explain the levels of biodiversity and India as a mega-biodiversity nation.
5. Explain the threats to biodiversity and in-situ and ex-situ conservation.
6. Classify natural resources and explain water scarcity and conflicts over water.
7. Compare conventional and non-conventional energy sources.
8. Explain the Sustainable Development Goals, their challenges and strategies.
9. Explain environmental movements (Chipko, Silent Valley, Bishnois) and disaster management.
10. Explain the types of pollution, acid rain, smog, ozone depletion and climate change.

7. Entrepreneurship Management

1. Explain the concept and importance of entrepreneurship.
2. Differentiate between an entrepreneur and a manager, and between an entrepreneur and an intrapreneur.
3. Explain the types of entrepreneurs.
4. Explain the competencies of an entrepreneur.
5. Explain the incentives and training centres available to entrepreneurs in India.
6. Explain franchising and outsourcing as options for entrepreneurs.
7. Discuss the problems and promotion of women entrepreneurs.
8. Define social entrepreneurship and explain its importance.
9. Explain idea generation, environmental scanning and SWOT analysis.
10. Explain the components of an ideal business plan and the steps in setting up a small unit.

8. Combinational and Sequential Design

1. Verify the truth tables of the basic gates and explain universal gates.
2. Implement AND, OR and NOT gates using NAND gates only.
3. State and verify De Morgan's laws.
4. Minimise a given Boolean expression using a K-map and implement it.
5. Design a Binary-to-Gray code converter.
6. Design a half adder and a full adder.
7. Design a 2-bit comparator.
8. Design a 3:8 decoder and a 4:1 multiplexer.
9. Explain flip-flops (SR, JK, D, T) and flip-flop conversion.
10. Design a 3-bit synchronous counter or a Mod-N counter, and explain shift registers.

9. Major Practical 1 (C Programming + DBMS)

1. Write a C program to calculate simple interest, with an algorithm and flowchart.
2. Write a menu-driven C program using switch-case for arithmetic operations.
3. Write a C program to reverse a number using a while loop, or to print the Fibonacci series.
4. Write a C program to find the factorial of a number using a recursive function.
5. Write a C program to sort an array and a program to check whether a string is a palindrome.
6. Write a C program to swap two numbers using call-by-value and call-by-reference.
7. Write a C program to multiply two matrices using a function.
8. Draw an ER diagram for a college or library system and convert it to relational tables up to 3NF.
9. Write SQL queries: CREATE TABLE with constraints, INSERT, UPDATE, DELETE and ALTER on a sample table.
10. Write SQL queries for aggregate functions, inner and outer joins, subqueries (IN/EXISTS), views, and GRANT/REVOKE/COMMIT/ROLLBACK.

10. Database Management System (Theory)

1. Explain the purpose of a database system and its architecture.
2. Explain the view of data and the degrees of data abstraction.
3. Explain data models and their evolution.
4. Explain ER model components, constraints and ER diagram issues.
5. Explain Codd's rules and relational schemas.
6. Explain keys and integrity rules in the relational model.
7. Explain functional dependencies and normalisation (1NF–3NF).
8. Explain SQL: DDL, DML, DQL and DCL, with examples.
9. Explain views, triggers and joins.
10. Explain transaction processing, concurrency control and database recovery techniques.

11. Programming with C (Theory)

1. Explain the structure of a C program and its compilation and execution process.
2. Explain algorithms, pseudocode and flowchart symbols with an example.
3. Explain data types, constants and variables in C, and typecasting.
4. Explain the types of operators and operator precedence.
5. Explain if-else, else-if and switch statements with examples.
6. Explain while, do-while and for loops, along with break, continue and goto.
7. Explain user-defined and library functions.
8. Explain pointers and addresses, and pointers with arrays and function arguments.
9. Explain structures and unions, and differentiate between them.
10. Explain the C preprocessor, block structure and initialisation.