

# **LOYOLA HIGH SCHOOL, PATNA-800010**

## **SYLLABUS FOR CLASS-11 COMMERCE (2025-2026)**

<b>ENGLISH</b>			
JUNE	<p>READING</p> <p>1. Reading Comprehension</p> <p>WRITING AND GRAMMAR</p> <p>1. Advertisement and its types</p>	<p>1. Draft an advertisement for your school informing about upcoming events.</p> <p>2. Write a diary entry sharing your childhood memories.</p>	
JULY	<p>GRAMMAR: WRITING : SPEECH</p> <p>1. Clauses</p> <p>LITERATURE (Hornbill)</p> <p>1. The Portrait of a Lady</p> <p>2. A Photograph</p> <p>Snapshot</p> <p>1. The Summer of the Beautiful White Horse</p>	<p>3. Role play: Enact a scene from the chapter "The Summer of the Beautiful White Horse" and exchange your thoughts.</p>	<b>Test-1</b> <b>(Portion from June to July)</b>
AUG	<p>WRITING AND GRAMMAR</p> <p>1. Poster</p> <p>LITERATURE (Hornbill)</p> <p>1. We're not afraid to die....</p> <p>2. Discovering Tut</p> <p>Snapshot</p> <p>1. The address</p>	<p>1 Prepare a mind map of the chapter "we are not afraid to die....."</p> <p>2. Watch and give Review of any of the suggested survival movies.-</p> <p>Life of Pie and draw its similarity from the text.</p> <p>3. Practice Communication skills through dialogue writing.</p> <p>4. Read some suggested novels.</p>	
SEPT	<p>READING</p> <p>1. Note-making and Summarisation</p> <p>WRITING AND GRAMMAR</p> <p>Practice ( Writing Section)</p> <p>LITERATURE (Hornbill)</p> <p>1. The Laburnum Top</p> <p>2. The Voice of the Rain</p>	<p>1. Write a poem on nature and submit it as an assignment.</p> <p>2. Practice note-making .</p>	
OCT	<p>READING</p> <p>1. Solving Comprehension</p> <p>2. Passage</p> <p>WRITING AND GRAMMAR</p> <p>1. Gap Filling</p> <p>2. Reordering of sentences</p> <p>3. Transformation of sentences</p> <p>Lit: (Snapshot)</p> <p>Mother's Day</p>	<p>1. Prepare a Vlog capturing your daily life and interests.</p> <p>2. Write an autobiography of rain.</p> <p>3. Review any poetry of the Romantic era writers</p>	HALF YEARLY (Portion from July to September)
NOV	<p>READING</p> <p>1. Practice Unseen Passages</p> <p>WRITING AND GRAMMAR</p> <p>1. Tenses</p> <p>2. Debates</p> <p>LITERATURE (Hornbill)</p> <p>1. Childhood</p>	<p>1. Organise a debate competition in your class on the topic – Class Activity.</p> <p>"Gender War disrupts the society."</p> <p>2. Share any anecdote from your childhood days.</p> <p>3. Distinguish and share the experiences between the two phases – adulthood and childhood.</p>	
DEC	<p>READING</p> <p>1. Note-making Practice</p> <p>WRITING AND GRAMMAR</p> <p>1. Practice (Grammar Section)</p> <p>LITERATURE (Hornbill)</p> <p>1. The Adventure</p> <p>Snapshot</p> <p>1. Birth</p>	<p>1. Write a brief note on any of your childhood experiences (good or bad).</p> <p>2. ASL test</p>	Test-2 (Portion from October to November)
JAN	<p>READING</p> <p>1. Revision</p> <p>WRITING AND GRAMMAR</p> <p>1. Revision All</p> <p>LITERATURE (Hornbill)</p> <p>1. Father to Son</p> <p>2. Silk Road (Snapshot)</p> <p>1. The tale of Melon City</p>	<p>1. Prepare a 'thank you card' for your father and add adjectives showing his qualities.</p> <p>2. Prepare your own travelogue and share your memories in class.</p> <p>3. Prepare a list of all poetic devices used in all the poetry of your textbook and write examples for each of these poetic devices.</p>	
FEB	<p>• Practice of Grammar exercises and writing section</p> <p>Revision for Annual Examination.</p>		ANNUAL EXAM FROM 16/02/26 Syllabus: All ( As prescribed from the teacher.)
JUNE	<p>READING</p> <p>1. Reading Comprehension</p> <p>WRITING AND GRAMMAR</p> <p>1. Advertisement and its types</p>	<p>1. Draft an advertisement for your school informing about upcoming events.</p> <p>2. Write a diary entry sharing your childhood memories.</p>	

# **LOYOLA HIGH SCHOOL, PATNA-800010**

## **SYLLABUS FOR CLASS-11 COMMERCE (2025-2026)**

<b>ACCOUNTANCY</b>			
<b>MONTH</b>	<b>Units/Subunits/Topics/ Chapters to be Covered</b>	<b>Details of Activity/Practical/ Projects to be given</b>	<b>Unit Tests /Formative Tests/Assignment</b>
JUNE	Introduction to Accounting Accounting - Concept, meaning, as a source of information, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business. Basic Accounting Terms Entity, Business Transaction, Capital, Drawings, Liabilities (Non-current and Current),	Project, The Indian Accounting Standard can be drawn in chart Paper.	
JULY	Assets (Non-current and Current), Expenditure (Capital and Revenue), Expenses, Revenue, Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtors. Creditors, Voucher, Discount (Trade Discount and Cash Discount) Theory Base of Accounting Fundamental Accounting Assumptions: GAAP Concept Basic Accounting Concepts: Business Entity, Money Measurement, Going Concern, Accounting Period Cost Concept, Dual Aspect, Revenue Recognition, Matching, Accounting convention: Full Disclosure, Consistency, Conservatism, Materiality . System of Accounting, Basis of Accounting: Cash Basis and Accrual Basis Accounting Standards: Applicability of Accounting Standards (AS) and Indian Accounting Standards (IndAS) Goods and Service Tax (GST): Characteristics and Advantages. Unit-2: Accounting Process Recording of Business Transactions Voucher and Transactions: Source Documents and Vouchers, Preparation of Vouchers, Accounting Equation Approach: Meaning and Analysis, Rules of Debit and Credit	Quiz, Weekly Test, Oral Test, Mind map, Case Studies, Role Play, Crossword Puzzles	28/07/2025 Monday test 1 Chapter 1 to 3
AUG	Recording of Transactions: Books of Original Entry Journal Special Purpose Books Cash Book: Simple, Cash book with bank column and petty cash book Purchase Book, Sales Book, Purchase Return Book Sales Return Book, Journal Proper. Note: Including trade discount, freight and cartage expenses for simple GST calculation	Quiz, Class Test, Weekly Test, Oral Test, Mind map, Case Studies	
SEPT	Ledger: Format, Posting from Journal and Subsidiary Book, preparation of trial balance. Financial Statement of Sole Proprietorship Meaning, Objectives and Importance; Revenue and Capital Expenditure; Deferred Revenue Expenditure, Opening Journal Entry. Trading and Profit and Loss Account: Gross	Quiz, Class Test, Weekly Test, Oral Test, Mind map, Case Studies.	

# **LOYOLA HIGH SCHOOL, PATNA-800010**

## **SYLLABUS FOR CLASS-11 COMMERCE (2025-2026)**

	Profit, Operating Profit and Net Profit. Preparation of Balance Sheet: Need, grouping and marshalling of assets and liabilities. Adjustment in preparation of Financial Statements with respect to Closing Stock,		
OCT	Outstanding Expenses, Prepaid Expenses, Accrued Income, Income Received in Advance, Depreciation. Adjustment in preparation of Financial Statements with respect to Bad Debts, Provision for Doubtful Debts, Provision for Discount on Debtors,	Quiz, Class Test, Weekly Test, Oral Test, Mind map, Case Studies,	HALF YEARLY From 06/10/2025 Recording Classification Summarizing Financial statement (without Adjustment)
NOV	Abnormal Loss, Goods taken for personal use/staff welfare, Interest on capital and Preparation of Trading and Profit and Loss Account and Balance Sheet of a sole proprietorship with adjustment. Trial Balance and Rectification of Errors Trial Balance: Objectives, meaning and preparation Errors: Classification - Error of omission, commission, principle and compensating, their effect on Trial Balance. Detection and rectification of errors: (i) Error which do not affect trial balance (ii) Errors which affect trial balance Preparation of Suspense Account. Bank Reconciliation Statement Need and Preparation of Bank Reconciliation Statement	Quiz, Class Test, Weekly Test, Oral Test, Mind map, Case Studies,	
DEC	Depreciation, Provision and Reserve Depreciation: Meaning, Features, Need, Causes, Factors Other similar terms: Depletion and Amortisation Methods of Depreciation: Straight Line Method (SLM) and Written Down Value Method (WDV) (Note: Excluding change of method) Difference between SLM and WDV Advantages of SLM and WDV Preparation of asset account, depreciation account and provision for depreciation account Treatment of disposal of asset		08/12/2025 Monday test 2 Financial statement (with adjustment) Rectification of error Depreciation
JAN	Provision and Reserve Provision, Reserves, Difference between Provisions and Reserves Types of Reserves: Revenue Reserve, Capital Reserve, General Reserve, Specific Reserve, Secret Reserve Difference between Revenue Reserve and Capital Reserve. Incomplete Records Features, reasons and limitations. Ascertainment of Profit/Loss by Statement of Affairs method (excluding conversion method)	Quiz, Class Test, Weekly Test, Oral Test, Mind map, Case Studies,	
FEB	PREPARATION OF PROJECT WORK & Revision for Final Exams.		ANNUAL EXAM From 16/02/26

# **LOYOLA HIGH SCHOOL, PATNA-800010**

## **SYLLABUS FOR CLASS-11 COMMERCE (2025-2026)**

<b>BUSINESS STUDIES</b>			
<b>MONTH</b>	<b>Units/Subunits/Topics/ Chapters to be Covered</b>	<b>Details of Activity/Practical/ Projects to be given</b>	<b>Unit Tests /Formative Tests/Assignment</b>
JUNE	Unit. 01 Evolution and Fundamentals of Business History of Trade and Commerce in India: Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities, Merchant Corporations, Major Trade Centers, Major Import and Exports, Position of Indian Sub-Continent in the World Economy Business Meaning, Characteristics, Business, Profession and Employment Concept Objective of Business Classification of Business Activities Industry and Commerce Industry Types - Primary, Secondary, Tertiary Meaning and Subgroups Commerce Trade: (types internal, external; wholesale and retail) and auxiliaries to trade (Banking, Insurance, Transportation, Warehousing, Communication and Advertising) Meaning Business Risk Concept.	Project, Quiz, Mind map, Class Tests, Case Studies	
JULY	Unit. 02 - Forms of Business Organizations Hindu Undivided Family Business: Concept. Cooperative Societies-Concept, merits, and limitations. Company - Concept, merits and limitations; Types: Private, Public and One Person Company Concept. Formation of company - stages, important documents to be used in formation of a company Choice of form of business organization Unit. 03 Public, Private and Global Enterprises Public Sector and Private Sector Enterprises Concept Forms of Public Sector Enterprises Departmental Undertakings, Statutory Corporations and Government Company Global Enterprises Features Joint Venture, Public Private Partnership Concept.	Project, Quiz, Mind map, Class Tests, Case Studies	
AUG	Unit. 04 Business Services , Meaning and types. Banking: Types of bank accounts - savings, current, recurring, fixed deposit and multi-option deposit account Banking services with particular reference to Bank Draft, Bank Overdraft, and Cash credit, E-Banking:- meaning, Types of digital Payments Insurance Principles. Types life, health, fire and marine insurance concept Postal Service - Mail, Registered Post, Parcel, Speed Post, Courier meaning. Unit. 05 Emerging Modes of Business E - business: concept, scope and benefits	Project, Quiz, Mind map, Class Tests, Case Studies	04/08/25 Monday test 1 Chapter:- 1 & 2
SEPT	Unit. 06 Social Responsibility of Business and Business Ethics Concept of Social Responsibility Case of Social Responsibility Responsibility towards owners, investors, consumers, employees, government and community Role of business in environment protection Business Ethics: - Concept and Elements.	Project, Quiz, Mind map, Class Tests, Case Studies	
OCT	Unit. 07 Sources of Business Finance Concept of Business Finance - equity shares, preferences share, retained earnings .	Project, Quiz, Mind map, Class Tests, Case Studies	HALF YEARLY From 06/10/2025 Chapter 1 to 6
NOV	Borrowed funds: debentures and bonds, loan from financial institution, commercial banks, public deposits, trade credit, Inter Corporate Deposits (ICD). Unit. 08 Small Business and Enterprises Entrepreneurship Development (ED): Concept, Characteristics and Need. Process of Entrepreneurship Development: Start-up India Scheme, ways to fund start-up. Intellectual Property Rights and Entrepreneurship. Small scale enterprise as defined by MSMED Act 2006 (Micro, Small and Medium Enterprise Development Act) Unit. 09 Internal Trade Internal trade - meaning and types services rendered by a wholesaler and a retailer.	Project, Quiz, Mind map, Class Tests, Case Studies	
DEC	Unit. 09 Internal Trade Types of retail-trade-Itinerant and small-scale fixed shops retailers large scale retailers-Departmental stores, chain stores concept GST (Goods and Services Tax): Concept and key features Role of small business in India with special reference	Project, Quiz, Mind map, Class Tests, Case Studies	
JAN	Unit. 10 International Trade International trade: concept and benefits Export trade Meaning and procedure Import Trade - Meaning and procedure Documents involved in International Trade, World Trade Organization (WTO) meaning and objectives.	Project, Quiz, Mind map, Class Tests, Case Studies	12/01/2026 Monday test 2 Ch- 8 & 9
FEB	Preparation of project Work & Revision for Final Exam.	ANNUAL EXAM From 16/02/26 Full syllabus	

# **LOYOLA HIGH SCHOOL, PATNA-800010**

## **SYLLABUS FOR CLASS-11 COMMERCE (2025-2026)**

<b>ECONOMICS</b>			
<b>MONTH</b>	<b>Units/Subunits/Topics/ Chapters to be Covered</b>	<b>Details of Activity/Practical/ Projects to be given</b>	<b>Unit Tests /Formative Tests/Assignment</b>
JUNE	(a)Central Problems of the Economy	Discussing the basic concepts related to Economics Types of economic system Definition of economics - wealth, welfare and scarcity ,Flow chart ,Numerical calculation , Graphs , Tables	
JULY	MICRO ECONOMICS (a)Central Problems of the Economy, (b) Introduction to Consumer Behaviour. Utility Approach, indifference curve Approach	Basic concepts , Flow chart Exemplary situation to explain the theories , Derivation of formulas , Conditions , Diagram Graphs , Numerical , Tables	
AUG	Continuation of Consumer behaviour		Unit test I Central problems of the economy Consumer behaviour
SEPT	MICRO ECONOMICS Consumer Behaviour : Demand Theory, Elasticity of Demand STATISTICS (a)Statistics-Meaning, Scope/ Function, importance of Statistics (b)Collection of Data	Concept development Flow chart Details notes preparation on various topics	
OCT	(c)Organisation / Presentation of data. Classification, tabulation, Diagrammatic and Graphical Representation (d)Measure of Central Tendency Mean, Median, Mode	Example Flow chart , Tables , Diagram , Graphs , Numericals	HALF YEARLY From 06/10/2025 Central problems of the economy Consumer behaviour Statistics , Introduction meaning importance Limitation , Organization and presentation of data , Central tendency mean
NOV	MICRO ECONOMICS (a)Producer Behaviour (b)Production Function (c)Cost (d) Revenue	Basic concepts ,Flow chart Exemplary situation to explain the theories ,Derivation of formulas Conditions , Diagram , Graphs Numerical , Tables	
DEC	MICRO ECONOMICS (e)Production Equilibrium (f) Forms of Market Projects Work	Formula , Diagram , Flow chart	Unit test II Statistics , Central tendency Mean median mode Production function
JAN	STATISTICS (e)Corelation (f)Index No.	Formula Numerical Flow chart	
FEB	<b>(f)Index No. Continuation</b>	Formula, Flow chart Numerical	ANNUAL EXAM From 16/02/26 Entire syllabus

# **LOYOLA HIGH SCHOOL, PATNA-800010**

## **SYLLABUS FOR CLASS-11 COMMERCE (2025-2026)**

<b>PHYSICAL EDUCATION</b>			
<b>MONTH</b>	<b>Units/Subunits/Topics/ Chapters to be Covered</b>	<b>Details of Activity/Practical/ Projects to be given</b>	<b>Unit Tests /Formative Tests/Assignment</b>
JUNE	Unit 1 Changing Trends and Careers in Physical Education 1. Concept, Aims & Objectives of Physical Education 2. Development t of Physical Education in India – Post Independence 3. Changing Trends in Sports 4. Career options in Physical Education 5. Khelo-India Program and Fit – India Program		
JULY	<b>UNIT 2 Olympic Value Education</b> 1. Olympism – Concept and Olympics Values 2. Olympic Value Education 3. Ancient and Modern Olympics 4. Olympics - Symbols, Motto, Flag, Oath, and Anthem 5. Olympic Movement Structure		Unit Test -1 21-07-2025- Unit 1 & 2
AUG	<b>Unit 3 Yoga</b> 1. Meaning and importance of Yoga 2. Introduction to Astanga Yoga 3. Yogic Kriyas (Shat Karma) 4. Pranayama and its types. 5. Active Lifestyle and stress management through Yoga <b>Unit 4 Physical Education and Sports for Children with Special Needs</b> 1. Concept of Disability and Disorder 2. Types of Disability, its causes & nature	YOGA PERFORMANCE BY STUDENT	
SEPT	3. Disability Etiquette 4. Aim and objectives of Adaptive physical Education 5. Role of various professionals for children with special needs <b>Unit 5 Physical Fitness, Wellness, and Lifestyle</b> 1. Meaning & importance of Wellness, Health, and Physical Fitness. 2. Components/ Dimensions of Wellness, Health, and Physical Fitness 3. Traditional Sports & Regional Games 4. Leadership through Physical Activity and Sports 5. Introduction to First Aid – PRICE		
OCT	<b>Unit 6 Test, Measurement &amp; Evaluation</b> 1. Define Test, Measurements and Evaluation. 2. Importance of Test, Measurements and Evaluation in Sports. 3. Calculation of BMI		HALF YEARLY From 06/10/2025 Unit 1-5
NOV	4. Somato Types 5. Measurements of health related fitness <b>Unit 7 Fundamentals of Anatomy, Physiology in Sports</b> 1. Definition and importance of Anatomy and Physiology in Exercise and Sports. 2. Functions of Skeletal System 3. Properties and Functions of Muscles. 4. Structure and Functions of Circulatory System and Heart. 5. Structure and Functions of Respiratory System.		
DEC	<b>Unit 8 Fundamentals of Kinesiology and Biomechanics in Sports</b> 1. Definition and Importance of Kinesiology and Biomechanic s in Sports. 2. Principles of Biomechanic s 3. Kinetics and Kinematics in Sports 4. Types of Body Movements 5. Axis and Planes <b>Unit 9 Psychology and Sports</b> 1. Definition & Importance of Psychology in Physical Education & Sports; 2. Develop-mental Characteristics at Different Stages of Development.		Unit Test 2 15-12-2025 Unit 6-8
JAN	3. Adolescent Problems & their Management 4. Team Cohesion and Sports; 5. Introduction to Psychological Attributes: <b>Unit 10 Training &amp; Doping in Sports</b> 1. Concept and Principles of Sports Training 2. Training Load: Over Load, Adaptation, and Recovery 3. Warming-up & Limbering Down 4. Concept of Skill, Technique, Tactics & Strategies 5. Concept of Doping and its disadvantage		
FEB	<b>PRACTICAL PRACTICE</b>	ANNUAL EXAM From 16/02/2026 Unit 1-10	



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## **SYLLABUS FOR CLASS-11 COMMERCE (2025-2026)**

<b>INFORMATICS PRACTICES</b>			
<b>MON TH</b>	<b>Units/Subunits/Topics/ Chapters to be Covered</b>	<b>Details of Activity/Practical/ Projects to be given</b>	<b>Unit Tests /Formative Tests/Assignment</b>
JUNE	<b>Unit 3: Database concepts and the Structured Query Language</b> <ul style="list-style-type: none"> <li>Database Concepts: Introduction to database concepts and its need, Database Management System.</li> <li>Relational data model: Concept of the domain, tuple, relation, candidate key, primary key, alternate key.</li> </ul> Advantages of using Structured Query Language, Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL, creating a database using MySQL, and Data Types.	1. create a database 2. To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key.	
JULY	<b>Unit 3: Database concepts and the Structured Query Language</b> <b>Data Definition:</b> <ul style="list-style-type: none"> <li>CREATE DATABASE, CREATE TABLE,</li> <li>DROP, ALTER TABLE</li> </ul> <b>Data Query</b> SELECT FROM, WHERE with relational operators, BETWEEN, Logical operators, IS, NULL, IS NOT NULL <b>Data Manipulation:</b> INSERT, DELETE, UPDATE Commands	3. To insert the details of at least 10 students in the above table. 4. To display the entire content of table. 5. To display Rno, Name and Marks of those students who are scoring marks more than 50. 6. To display Rno, Name, DOB of those students who are born between '2005-01-01' and '2005-12-31' *Suggested material NCERT Informatics Practices - Text book for class - XI	Monday Test 21-07-2025  Chapter : 7,8
AUG	<b>UNIT 1: Introduction to Computer System</b> Introduction to computer and computing: evolution of computing devices, components of a computer system and their interconnections, and input/output devices. Computer Memory: Units of memory, types of memory primary and secondary, data deletion, its recovery, and related security concerns. Software: purpose and types system and application software, generic and specific purpose software.	Activities as specified in the NCERT book	
SEPT	<b>UNIT 2: Introduction to Python</b> Basics of Python programming, Python interpreter - interactive and script mode, The structure of a program, Indentation, identifiers, keywords, constants, variables. Indentation, identifiers, keywords, constants, variables. types of operators, precedence of operators, Data types, mutable and immutable data types, statements, expressions, evaluation and comments, input and output statements, data type conversion, debugging. Control Statements: if-else, if-elif-else, while loop, for loop	Programming in Python 1. To find average and grade for given marks. 2. To find sale price of an item with given cost and discount (%). 3. To calculate perimeter/circumference and area of shapes such as triangle, rectangle, square and circle. 4. To calculate Simple and Compound interest. 5. To calculate profit-loss for given Cost and Sell Price. 6. To calculate EMI for Amount, Period and Interest. 7. To calculate tax - GST / Income Tax. 8. To find the largest and smallest numbers in a list	
OCT	<b>Lists:</b> list operations - Creating, Initializing, Traversing, and Manipulating Lists, List Methods, and built-in Functions. <b>Dictionary:</b> the concept of key-value pair, Creating, Initializing, Traversing, Updating, and Deleting elements, Dictionary Methods, and built-in functions.	8. To find the largest and smallest numbers in a list. 9. To find the third largest/smallest number in a list. 10. To find the sum of squares of the first 100 natural numbers. 11. To print the first 'n' multiples of given number. 12. To count the number of vowels in user entered string. 13. To print the words starting with an alphabet in a user entered string. 14. To print number of occurrences of a given alphabet in each string. 15. Create a dictionary to store names of states and their capitals. 16. Create a dictionary of students to store names and marks obtained in 5 subjects. 17. To print the highest and lowest values in the dictionary.	HALF YEARLY From 06/10/2025  Chapter : 1,7,8
NOV	<b>UNIT 2: Introduction to Python</b> Introduction to NumPy: Introduction, Creation of NumPy Arrays from List <b>Unit 4: Introduction to the Emerging Trends:</b> <ul style="list-style-type: none"> <li>Artificial, Intelligence, Machine Learning.</li> <li>Natural Language Processing,</li> <li>Immersive experience (AR, VR),</li> <li>Robotics,</li> <li>Big-data and its characteristics.</li> <li>Internet of Things (IoT), Sensors</li> </ul> Smart Cities.	Activities as specified in the NCERT book	
DEC	<b>Unit 4: Introduction to the Emerging Trends:</b> <ul style="list-style-type: none"> <li>Cloud Computing and Cloud Services (SaaS, IaaS, PaaS)</li> <li>Grid Computing</li> <li>Blockchain technology</li> </ul>	Activities as specified in the NCERT book	Monday Test- 02 15-12-2025 Chapter : 3,4
JAN	<b>REVISION</b>		
FEB	<b>EXAMINATION</b>	<b>ANNUAL EXAM From 16/02/26</b>	

# **LOYOLA HIGH SCHOOL, PATNA-800010**

## **SYLLABUS FOR CLASS-11 COMMERCE (2025-2026)**

### **APPLIED MATHEMATICS**

MONTH	Units/Subunits/Topics/ Chapters to be Covered	Details of Activity/Practical/ Projects to be given	Unit Tests /Formative Tests/Assignment
JUNE	<ul style="list-style-type: none"> <li>• Introduction to sets – definition</li> <li>• Definition of a Set</li> <li>• Examples and Non-examples of Set Representation of sets</li> <li>• Represent a set in Roster form and Set builder form</li> <li>• Write elements of a set in Set Builder form and Roster Form</li> <li>• Convert a set given in Roster form into Set builder form and vice-versa . Types of sets and their notations</li> <li>• Identify different types of sets on the basis of number of elements in the set</li> <li>• Differentiate between equal set and equivalence set</li> <li>• Types of Sets: Finite Set, Infinite Set, Empty Set, Singleton Set, Subsets</li> <li>• Enlist all subsets of a set</li> <li>• Find number of subsets of a given set</li> <li>• Find number of elements of a power set</li> <li>• Subset of a given set</li> <li>• Familiarity with terms like Superset, Improper subset, Universal set, Power set . Intervals</li> <li>• Express subset of real numbers as intervals</li> <li>• Open interval, closed interval, semi open interval and semi closed interval . Venn diagrams</li> <li>• Apply the concept of Venn diagram to understand the relationship between sets</li> <li>• Solve problems using Venn diagram</li> <li>• Venn diagrams as the pictorial representation of relationship between sets</li> <li>• Practical Problems based on Venn Diagrams Operations on sets</li> <li>• Perform operations on sets to solve practical problems</li> <li>• Operations on sets include i) Union of sets ii) Intersection of sets iii) Difference of sets iv) Complement of a set v) De Morgan's Laws</li> </ul>	Plot the graph of functions on excel study the nature of function at various points, drawing lines of tangents	
JULY	<b>Relations</b> <ul style="list-style-type: none"> <li>☑ Express relation as a subset of Cartesian product</li> <li>☑ Find domain and range of a relation</li> </ul> <b>Sequence and Series</b> <b>Arithmetic Progression</b> <ul style="list-style-type: none"> <li>• Identify Arithmetic Progression (AP)</li> <li>• Establish the formulae of finding <math>n</math>th term and sum of <math>n</math> terms</li> <li>• Solve application problems based on AP</li> <li>• Find arithmetic mean (AM) of two positive numbers</li> </ul> <b>Geometric Progression</b> <ul style="list-style-type: none"> <li>• Identify Geometric Progression (GP)</li> <li>• Derive the <math>n</math>th term and sum of <math>n</math> terms of a given GP</li> <li>• Solve problems based on applications of GP Find geometric mean (GM) of two positive numbers</li> <li>• Solve problems based on relation between AM and GM and its applications.</li> </ul>	Create a budget of income and spending	
AUG	<b>Factorials :</b> Define factorial of a number <ul style="list-style-type: none"> <li>• Calculate factorial of a number. Permutations : definition and simple problems.</li> </ul> <b>Combinations</b> <ul style="list-style-type: none"> <li>• Define combination</li> <li>• Differentiate between permutation and combination</li> <li>• Apply the formula of combination to solve the related problems.</li> <li>• Functions :</li> <li>• Identify dependent and independent variables</li> <li>• Define a function using dependent and independent variables. Domain and Range of a function. Types of functions and their graphical representation. Representation of function graphically.</li> <li>• Limits and continuity : definition and process of finding and testing limiting value and continuity .</li> </ul> <b>Functions</b> <ul style="list-style-type: none"> <li>• Identify dependent and independent variables</li> <li>• Define a function using dependent and independent variable</li> </ul>	Create and compare sheet of price & features to buy a product	



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## **SYLLABUS FOR CLASS-11 COMMERCE (2025-2026)**

	<b>Domain and Range of a function ,</b> <b>Types of functions and their graphical representation</b> <b>Concepts of limits and continuity of a function</b> <ul style="list-style-type: none"> <li>Define limit of a function</li> <li>Solve problems based on the algebra of limits</li> <li>Define continuity of a function</li> </ul>		
SEPT	Instantaneous rate of change, definition . Find the derivative of the functions. Derivatives of algebraic functions using Chain rule. Binary Numbers: Express decimal numbers in binary system , Express binary numbers in decimal system. Indices, Logarithm and Antilogarithm Laws and properties of logarithms. Simple applications of logarithm and Antilogarithm Clock : Evaluate the angular value of a minute . Calculate the angle formed between two hands of clock at given time . Calculate the time for which hands of clock Meet. Calender : Determine Odd days in a month/ year/ century . Decode the day for the given date. Time , Work and Distance : Basic concept of time and work . Problems on time taken / distance covered / work done. Seating Arrangements : Linear and circular seating arrangement . Position of a person in a seating arrangement. Differentiation as a process of finding derivative <ul style="list-style-type: none"> <li>Find the derivative of the functions</li> <li>Find the derivative of function of a function</li> </ul>	Prepare the best option plan to buy a product by comparing cost, shipping charges, tax and other hidden costs	
OCT	<b>Logical reasoning</b> : Solve logical problems involving odd man out, syllogism, blood relation and coding decoding	Smart purchasing during sale season	HALF YEARLY From 06/10/2025
NOV	Probability : Introduction , Random Experiment and Sample space , event. Type of events -Impossible and sure event, Independent and dependent event, mutually exclusive and exhaustive event. <b>Conditional Probability</b> : Conditional Probability of event E given that F has occurred is: $P(E F) = P(E \cap F) / P(F)$ , $P(F) \neq 0$ CO-ORDINATE GEOMETRY : Straight lines : Gradient of a line . Equation of line: Parallel to axes, point-slope form, two-points form, slope intercept form, intercept form . Application of the straight line in demand curve related to economics problems .	Prepare a report card using scores of the last four exams and compare the performance	
DEC	<b>CIRCLE</b> : Define a circle . Find different form of equations of a circle . Solve problems based on applications of circle. <b>PARABOLA</b> : Define parabola and related terms, Parabola as a locus of a point in a plane. Equation of a parabola in standard form. <b>FINANCIAL MATHEMATICS</b> : Interest and interest rate , Accumulation with simple and compound interest, Simple and compound interest rates with equivalency, Effective rate of interest, Annuities, Calculating value of Regular Annuity, Simple applications of regular annuities (up to 3 period), Tax, calculation of tax, simple applications of tax calculation in Goods and service tax, Income Tax, Bills, tariff rates, fixed charge, surcharge, service charge	Collect the data on weather, price, inflation, and pollution. Sketch different types of graphs and analyze the results.	
JAN	Data Interpretation – Measure of Dispersion <ul style="list-style-type: none"> <li>Understand meaning of dispersion in a data set</li> <li>Differentiate between range, quartile deviation, mean deviation and standard deviation</li> <li>Calculate range, quartile deviation, mean deviation and standard deviation for ungrouped and grouped data set</li> <li>Choose appropriate measure of dispersion to calculate spread of data</li> </ul> Percentile rank , Correlation <b>FINANCIAL MATHEMATICS continued</b> : Calculation and interpretation of electricity bill, water supply bill and other supply bills.	Revision	
FEB	<b>Revision</b>	ANNUAL EXAM From 16/02/26	