

**LOYOLA HIGH SCHOOL, PATNA**  
**SYLLABUS FOR CLASS XII, 2018- 2019- SCIENCE**

<b>INFORMATICS PRACTICES (THEORY)</b>
Send Up March -Aug
Chapter 1 Computer Networking ( <b>April-May</b> ) Chapter 2 Open source Concepts ( <b>April - May</b> )
Chapter 3 Java Revision-I ( <b>June</b> ) (Programming fundamentals)
Chapter 4 Java Revision -II ( <b>July</b> ) (Gui Swing Controls)
Chapter - 5 Java Revision - III ( Class & Objects ) Chapter - 6 Java Classes and Libraries
Chapter - 7 Concept of inheritance ( <b>August</b> )
Chapter - 8 GUI Dialogs & Tables
Chapter - 9 Database Connectivity
Chapter - 10 Web Application Developments ( <b>September</b> )
Chapter - 11 HTML-I ( Basic Tags )
Chapter - 12 HTML-II ( Advance Tags)
Chapter - 13 Introduction To XML
Chapter - 14 MYSQL Revision Tour & Transactions ( <b>October</b> )
Chapter - 15 Grouping & Tables Joins
Chapter - 16 Tables and Integrity Constraints
Chapter - 17 IT- Applications.
Revision, Project Work ( <b>November</b> )

<b>MATHEMATICS ( MATHEMATICS XII PARTS I, II N C E R T )</b>			
APRIL	1	Matrices & Determinant	13
MAY	2.	Relations and functions, Binary Operations Inverse trigonometric functions	10
	3	Continuity and differentiability	04
JUNE	5.	Differentiation	04
JULY	4.	Vector & 3D Geometry	12
	6.	Applications of derivatives	04
	7.	Integration	08
AUG	8.	Integration ( Contd )	10
	9.	Application of Derivatives (Contd)	06
SEP	10.	3 D - Geometry (Contd)	05
	11.	Linear Programming )	06
OCT	12.	Probability	10
NOV	13.	Differential Equation	08
Q.Pattern	01 x 04 = 04	06 X 06 = 36	
Time : 3 hrs	02 x 08 = 16	04 x 11 = 44	<b>Total : 100 Mks</b>
<b>F.M: 100</b>			

<b>ENGLISH</b>	<b>Flamingo</b>	<b>Vistas</b>	<b>Writing Section</b>
APRIL	Chapter - 1	Chapter - 2	Notice, Invitation Writing
MAY	Chapter - 2	Chapter -4	Letter Writing
JUNE	Chapter -3	Chapter -5	Letter Writing, Advertisement
JULY	Chapter -4 & 5	_____	Poster Writing
First part of the Novel ( 1 to 15 )			
AUG	Chapter -8	Chapter -6	Factual description
SEP	_____	Chapter -7	Report Writing for Newspaper / Magazine
OCT	_____	Chapter -8	Speech, Debate Article
NOV	_____		
Second Part of the Novel ( 16- 28 )			

<b>PHYSICS ( Theory - 70 marks )</b>	
<b>APRIL</b>	1. Electrostatics - up to electric potential
<b>MAY</b>	1. Electrostatics - from Capacitance
<b>JUNE</b>	2. Current electricity - upto laws of resistance
<b>JULY</b>	2. Current electricity - from Internal resistance of cells 3. Magnetic effect of current - upto Biot - Savart laws & applications
<b>AUG</b>	3. Magnetic effect of current and Magnetism - from ampere's circuital law 4. EMI & AC
<b>SEP</b>	5. E. M Waves 6. Optics
<b>OCT</b>	9. Electronics devices 10. Communication System .
<b>NOV</b>	7. Dual nature of matter & radiations 8. Atoms & nuclei

<b>PHYSICS (PRACTICAL) SECTION A - Experiments :</b>	
1. To determine resistance per cm versus current of a given wire by plotting a graph of P.D. Versus Current 2. To find resistance of a given wire using meter- bridge and hence determine the specific resistance of its material. 3. To verify the laws of combination (Series) of resistances using a metre bridge. 4. Parallel 5. To compare E.M.F.'s of two given primary cells using potentiometer. 6. To determine the internal resistance of a given primary cell using potentiometer. 7. To determine resistance of a galvanometer by half deflection method and to find its figure of merit.	
Activities : As per list suggested in syllabus	
<b>SECTION B - Experiments</b>	
1. To find the value of $v$ for different values of $u$ in case of a concave mirror and to find the focal length. 2. To find the focal length of a convex lens by plotting graphs between $u$ & $v$ or between $1/u$ & $1/v$ 3. To find the focal length of a concave lens using a convex lens. 4. To determine the angle of minimum deviation for a given prism by plotting a graph between the angle of incidence and the angle of deviation. 5. To draw the characteristic curves of a zener diode and to determine its reverse break down voltage. 6. To find the focal length of a convex mirror, using a convex lens. 7. To find refractive index of a liquid by using (i) Concave mirror (ii) Convex lens and plane mirror. 8. To draw I-V characteristic curves of a p-n junction in forward bias and reverse bias.	
Activities : As per list suggested in syllabus	
Project : As per list suggested in syllabus	
Evaluation Scheme : Two experiment from each Section $8 \times 2 = 16$ mks	
Practical Records : 6 mks Project : 3 mks	
Viva on experiment Projects - 5 mks	
<b>Total - 30 marks</b>	

<b>CHEMISTRY A. PHYSICAL CHEMISTRY - 23 MARKS</b>	
<b>APRIL</b>	Solid State + Solutions
<b>MAY</b>	Solutions ( rest Part )
<b>JUNE</b>	Electrochemistry (Rest Part ) + Chemical Kinetics + Surface Chemistry
	(B) Organic Chemistry - 28 marks
<b>JULY</b>	Electrochemistry (Rst Part ) + Chemical Kinetics + Surface Chemistry
<b>AUG</b>	Halo alkanes and Haloarenes (rest) + Alcohols and Ethers
<b>SEP</b>	Aldehyde & Ketone + Org. compounds containing nitrogen
<b>OCT</b>	Polymers + Biomolecules + Chemistry in everyday life.
	(C) Inorganic Chemistry 19 Marks
<b>NOV</b>	General principles and process of Isolation of elements + P-block elements
<b>DEC</b>	P-block + d - and f - block elements + Co-ordination Complexes ( Rest part )

<b>CHEMISTRY (PRACTICAL) (LAB MANUAL IN CHEMISTRY FOR CLASS XII ARYA BOOK)</b>			
<b>Section A. Volumetric Analysis :-</b>			
1. Determination of Concentration / Molarity of $\text{KMnO}_4$ by titrating it against a standard solution of Oxalic acid. ( July ) 2. Determination of Concentration / Molarity of $\text{KMnO}_4$ by titrating it against a standard solution of Mohr's salt. ( July )			
<b>Section B. Salt Analysis :-</b>			
3. Identification of one Cation and one anion in the given Salt. ( Aug + Sep.)			
<b>Section C. Content Based Experiments :-</b>			
4. Test of the Functional groups present in given organic compounds. } (Oct + Nov.) 5. Preparation of $\beta$ -Naphthalein dye & Iodoform.			
<b>Section D. Project :-</b>	<b>Section E. Record and Viva :-</b>		
Question Pattern : (Practical) :- (iii)			
a. Volumetric Analysis	08	b. Salt Analysis	08
c. Content Based Experiments	06	d. Record & Viva	04
<b>Total : Marks 30</b>		e. Project	04