



MAYO COLLEGE
Academic Curriculum - 2021-22
Subject – Information Practices
CLASS – XII

ASSESSMENT 1	ASSESSMENT 2	HALF YEARLY	PRE BOARDS
<p style="text-align: center;">PYTHON</p> <ul style="list-style-type: none"> • Python libraries • Pandas • Matplotlib • Series-Introduction • Series Data Structure • Data Frame Introduction <p style="text-align: center;">Computer Network</p> <ul style="list-style-type: none"> • Network Introduction • Type of networking • Network Topologies • Switching Techniques • Communication Protocols, • Network Devices • Data Terminology • Wireless, Wired communication Medium • Network Applications • Network Security Concept <p style="text-align: center;">Societal Impacts</p>	<p style="text-align: center;">Topics covered in PA-1</p> <p style="text-align: center;">PYTHON</p> <ul style="list-style-type: none"> • Accessing Modifying values in DataFrame • Python Pandas II- Introduction • Binary Operations • Descriptive Statistics • Pandas • Pandas – Functions • Advance Operation on DataFrame • Handling Missing Data <p style="text-align: center;">DATABASE</p> <ul style="list-style-type: none"> • Relational Data Model • Making Simple Queries • Creating tables • Viewing, modifying, deleting and altering commands. • Math function • Text Function 	<p style="text-align: center;">Topics covered in PA-1,PA-2</p> <p style="text-align: center;">PYTHON</p> <ul style="list-style-type: none"> • Plotting with Pyplot • Using Pyplot of Matplot library • Creating Line chart and Scatter chart • Creating bar chart and pie chart • Customizing the plot • Creating Histogram • Box plot and frequency polygon • Plotting Data from DataFrame <p style="text-align: center;">DATABASE</p> <ul style="list-style-type: none"> • Date Function • Aggregate Function • Querying and manipulating Data • Operations on Relations • Joins and Equi Joins • Set Operation • UNION • MINUS • INTERSECT <p>Types of SQL function</p>	<p style="text-align: center;">PYTHON</p> <ul style="list-style-type: none"> • Python libraries • Pandas • Matplotlib • Series-Introduction • Series Data Structure • Data Frame Introduction <p style="text-align: center;">Computer Network</p> <ul style="list-style-type: none"> • Network Introduction • Type of networking • Network Topologies • Switching Techniques • Communication Protocols, • Network Devices • Data Terminology • Wireless, Wired communication Medium • Network Applications • Network Security Concept <p style="text-align: center;">Societal Impacts</p>



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CLASS – XI

ASSESSMENT 1	ASSESSMENT 2	HALF YEARLY	FINALS
<p>COMPUTER SYSTEM</p> <ul style="list-style-type: none"> • Basics, Evolution and Generation, Uses of various fields • I/O devices • Memory and its Types • Software and its types • Secondary Storage Devices • Software-types, FOSS <p style="text-align: center;">PYTHON</p> <ul style="list-style-type: none"> • Basics, Python mode • Identifiers, Keywords, Constant, Variables • Data Types, Operators, Data Type, I/O console statements • Basic Programs <p style="text-align: center;">Emerging Trends</p> <ul style="list-style-type: none"> • AR/VR/ML • NLP, Big Data, IOT • Cloud Computing • Block chain • Grid Computing 	<p>Topics Covered in PA-1</p> <p style="text-align: center;">PYTHON</p> <ul style="list-style-type: none"> • Flow of control • Types of Statements • Statement Flow Control • if statements • if-else statements • the nested if statements • Repetition of tasks • The range • () function • Loops-for , while • Programs <p style="text-align: center;">DATABASE</p> <ul style="list-style-type: none"> • Introduction • Data and its purpose • Types of Data • Data Processing Cycle • File based system • Relational Data Model • MySQL and SQL 	<p>Topics Covered in PA1-PA2</p> <p style="text-align: center;">PYTHON</p> <ul style="list-style-type: none"> • List-Introduction • Creating and Accessing a list • List Operation • List Function and Methods • Working with list-Appending, Modifying, Deleting, Sorting • Dictionary -Introduction • Working with Dictionary-key value pair. • Dictionary Functions and Method • Programs <p style="text-align: center;">DATABASE</p> <ul style="list-style-type: none"> • Database Concepts • File based System • Relational Database Model • Terminology of Relational Model • MySQL Database System • Queries related to MySQL and SQL,SQL Queries 	<p>Topics Covered in PA1, PA2, HY</p> <p style="text-align: center;">PYTHON</p> <ul style="list-style-type: none"> • NumPy-Introduction • NumPy Data Type • Creating NumPy Arrays • Working with NumPy Arrays • Arithmetic Operation on NumPy Arrays • Using Functions with NumPy Array • 1D array • 2 D array • Programs <p style="text-align: center;">DATABASE</p> <ul style="list-style-type: none"> • SQL-Introduction • MySQL, SQL elements • SQL command syntax • Creating, removing, opening database • Creating, modifying Inserting data in tables • Simple Queries • DML,DDL commands