



The Islamia University of Bahawalpur

## Department of Applied Psychology

Mathematics (PSY-01103)

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**Instructor:** *Sir Mudassir Niaz Khan*

**Semester:** *BS 1<sup>st</sup>*

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### Course Contents

#### ➤ **Functions & Limits**

- Introduction
- Domain & Range
- Linear Functions
- Identity Functions
- Constant Functions
- Even & Odd Functions
- Including Exercise

#### ➤ **Differentiation**

- Introduction
- Derivation by First Principal
- Quotient Rule
- Product Rule
- Derivation of Trigonometric Functions
- General Formulas of Derivation
- Including Exercise

#### ➤ **Integration**

- Introduction
- Theorems of Integration
- Integration of Trigonometric Functions
- General Formulas of Integration
- Integration by Limits
- Integration of Exponential Values
- Including Exercise

#### ➤ **Analytic Geometry**

- Introduction
- Distance Formula
- Slope
- Point Slope Form of eq. of Straight Line
- Including Exercise

#### ➤ **Linear Inequalities**

- Introduction
- Corner Point
- Feasible Solution Set
- Objective Function
- Optimal Solution
- Including Exercise

#### ➤ **Vectors**

- Introduction
- Unit Vector
- Magnitude of a vector
- Cross Product
- Properties of Cross Product
- Dot Product
- Properties of Dot Product
- Including Exercise

#### ➤ **Assignments**

- Least Cost Method
- North West Corner Method
- Vogel Approximation Method