COURSE CONTENTS
DIT THIRD SEMESTER
SECOND YEAR

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE
CUSTOMIZED SYLLABUS FOR DIT (02 Year)
ENGLISH –II

Total Marks: 100
Total Weeks: 20
Contact Hours per Week: 06
Total Contact Hours: 120

Unit No. 1 **Journey to Taif** Theme/Sub-Theme: Ethics and Values/ Tolerance	Comprehension Questions/ MCQs/ Correct Pronunciation, Appropriate Pitch and Voice Variation
Unit No. 2 **The Last Lesson** Theme/Sub-Theme: Patriotism/ National Pride	Comprehension Questions/ MCQs/ Narrative Structure Analysis
Unit No. 7 **Because I could Not Stop for Death (Poem)** Theme/Sub-Theme: Immortality and the Afterlife	Comprehension Questions/ MCQs
Unit No.4 **The Power of Digital Learning** Theme/Sub-Theme: MOOCs (Massive Open Online Courses/ Educational Resources), Twitter/ LinkedIn	Comprehension Questions/ MCQs/ Analyzing Organisational Patterns
Unit No. 8 **The Devoted Friend** Theme/Sub-Theme: Hypocrisy and Moral Blindness	Comprehension Questions/ MCQs/ Analyzing Organisational Patterns
Unit No.9 **The Doll's House** Theme/Sub-Theme: Hope and Inner Beauty/ Social Prejudice	Comprehension Questions/ MCQs/ Analyzing Organisational Patterns
Unit No.10 **All the World's a Stage (Poem)** Theme/Sub-Theme: Human Existence/ Life's Stages	Comprehension Questions/ MCQs/ Analyzing Organisational Patterns

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE

Vocabulary and Grammar	Oral Communication Skills	Writing Skills	Page No.
Use of Idioms and Proverbs in Different Texts	Critical Analysis of Situations or Events	Clear and Coherent Writing	1
Adjectival Phrase/ Prepositional Phrase/ Adverbial Phrase	Attentive Listening	Editing and Proofreading	8
Denotative Meaning/ Connotative Meaning	Using Complex Questions	Writing with Correct Mechanics/ Developing and Strengthening Writing	22
Parts of Speech	Dramatic Techniques	Writing Arguments with Valid Reasoning and Evidence	44
Spot the Error	Role-Play Discussion	Creative Writing	60
Words Meanings	Interpretation of a Descriptive Passage	Writing a Précis	84
Antonym/ Synonym/ Preposition	Practising Oral Communication Skills	Argumentative Paragraph Writing	92

Recommended Book: English Part-II

(Intermediate English Book-III/ English Grammar & Composition 11-12)

Authors:

- Prof. Humayun Adil Hameed
- Khawaja Mazhar-ul-Haq

Punjab Education, Curriculum, Training and Assessment Authority (PECTAA)

Advisory Note: Teachers and students are advised to strictly adhere to the syllabus prescribed and notified by the Punjab Board of Technical Education (PBTE), Lahore. This syllabus shall serve as the official framework for all teaching and learning activities. Furthermore, all examinations conducted by PBTE Lahore will be based exclusively on the contents of this approved syllabus.

CERTIFICATE

It is certified that the customized syllabus of **ENGLISH-II** has been devised from the revised textbooks of PECTAA.

Teacher Name: Inam-ul-Haq (Chief Instructor BS-19)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE

CUSTOMIZED SYLLABUS FOR DIT (02 Year)

URDU – II

Total Theory Marks:	100
Total Weeks:	20
Contact Hours per Week:	06
Total Contact Hours:	120

حمد و نعت

عنوانات	شعراء
۱۔ حمد	سید صبیح الدین صبیح رحمانی
۲۔ نعت	افتخار عارف

حصہ نثر

عنوانات	مصنّفین
۳۔ ہجرت حبشہ	مولانا صفی الرحمٰن مبارک پوری
۴۔ ماں جی	قدرت اللہ شہاب
۵۔ رستم و سہراب	آغا حشر کاشمیری
۶۔ سیر دوسرے درویش کی	میر امن دہلوی
۷۔ نظریہ پاکستان	ڈاکٹر غلام مصطفیٰ خان

حصہ نظم

۸۔ انسان کامل کی برکات	حفیظ جالندھری
۹۔ نثار میں تری گلیوں کے	فیض احمد فیض
۱۰۔ نئی نسل کا نوحہ	امجد اسلام امجد

حصہ غزل

۱۱۔ جگ میں آکر ادھر اُدھر دیکھا	خواجہ میر درد
۱۲۔ سب کہاں کچھ لالہ و گل میں نمایاں ہو گئیں	مرزا غالب
۱۳۔ ستاروں سے آگے جہاں اور بھی ہیں	علامہ محمد اقبال

اردو (بارھویں جماعت)

مؤلفین: ڈاکٹر طارق حبیب، پروفیسر محمد ظفر الحق چشتی، ڈاکٹر حمیرا صادق قریشی، پروفیسر محمد مشتاق احمد ساقی

ناشر: رضا ٹریڈرز، لاہور **مطبع:** میاں سنز پریس، لاہور

برائے: پنجاب ایجوکیشن، کریکولم، ٹریننگ اینڈ اسسمنٹ اتھارٹی، لاہور

خطوط:

۱. امتحان میں کامیابی کا ذکر
۲. ہم نصابی سرگرمیوں میں بھرپور حصہ لینے کے لیے
۳. تحفہ ملنے پر شکریہ ادا کرنے کے لیے
۴. دوست کی والدہ کی وفات پر اظہار تعزیت کے لیے
۵. ٹریفک کے بڑھتے ہوئے حادثات اور دیگر مسائل پر اظہار خیال کے لیے
۶. اخبار کے مدیر کے نام، مہنگائی کے بارے میں
۷. اخبار کے مدیر کو بڑھتے ہوئے سماجی مسائل کے بارے میں
۸. چھوٹی بہن کے نام کمپیوٹر کی افادیت کے بارے میں
۹. دوست کو کھیلوں کی اہمیت کے بارے میں
۱۰. دوست کے نام شعر و ادب کی اہمیت کے بارے میں

آب بیتی:

۱. ایک پھول کی آب بیتی
۲. ایک قلم کی آب بیتی
۳. ایک درخت کی آب بیتی
۴. اردو زبان کی آب بیتی
۵. پرانی کرسی کی آب بیتی
۶. ایک کتاب کی آب بیتی
۷. قبر پر نصب کتبے کی آب بیتی
۸. ایک فٹبال کی آب بیتی
۹. ایک کوڑے دان کی آب بیتی
۱۰. سو روپے کے نوٹ کی آب بیتی

مضمون نویسی:

۱. سیرت طیبہ صلی اللہ علیہ وسلم
۲. پاکستان میں آبادی کے مسائل
۳. تعلیم نسواں
۴. سائنس کے کرشمے

۵. برداشت اور رواداری

۶. ٹریفک قوانین

۷. بدعنوانی (کرپشن) سے نجات

۸. پاکستان چین اقتصادی راہداری

۹. اردو کی مقبولیت کے اسباب

۱۰. اتحاد عالم اسلام

۱۱. سیلاب کی تباہ کاریاں

۱۲. حبّ الوطنی

۱۳. جمہوریت اور جمہوری رویے

۱۴. تعمیر وطن میں طلبہ کا کردار

۱۵. انفارمیشن ٹیکنالوجی

۱۶. مسئلہ کشمیر

۱۷. علامہ اقبال رحمۃ اللہ علیہ کا تصور جہاد

۱۸. دہشت گردی: ایک ناسور

۱۹. ڈینگی بخار اور حفاظتی تدابیر

۲۰. سوشل میڈیا: فوائد اور نقصانات

۲۱. ٹیکنیکل ایجوکیشن

گرائمر:

۱. امدادی فعل

۲. حروف اور مطابقت

۳. رموز او قاف

کتاب کا نام: اردو قواعد و انشا (گیارھویں اور بارھویں جماعت کے طلبہ کے لیے)

مصنف / مؤلف: پروفیسر محمد طاہر صدیقی

مدیران: ڈاکٹر جمیل الرحمٰن محمد ظہیر کاشروٹو

ناشر: لاثانی کتب خانہ، ہارون آباد

مطبع: قدرت اللہ پرنٹرز، لاہور

برائے: پنجاب ایجوکیشن، کریکولم، ٹریننگ اینڈ اسسمنٹ اتھارٹی، لاہور

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CERTIFICATE

It is certified that the customized syllabus of **URDU-II**
has been devised from the revised textbooks of PECTAA.

Teacher Name: Sadam Hussain (Instructor BS-17)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

کتاب کا نام: اردو قواعد و انشا (گیارھویں اور بارھویں جماعت کے لیے)

مصنف/مؤلف: پروفیسر محمد طاہر صدیقی

مدیران: ڈاکٹر جمیل الرحمٰن محمد ظہیر کاشروٹو

ناشر: مرکزی کتب خانہ

مطبع: آر آر پرنٹرز، لاہور

برائے: پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ، لاہور

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It is certified that the customized syllabus of **URDU-II**
has been devised from the revised textbooks of PECTAA.

Teacher Name: Sadam Hussain (Instructor BS-17)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE
CUSTOMIZED SYLLABUS FOR DIT (02 Year)
PAK-STUDIES

Total Theory Marks:	50
Total Weeks:	20
Contact Hours Per Week:	03
Total Contact Hours:	60

1. CHAPTER – I: ISLAM AND PAKISTAN

* Meaning & Basic Sources of Islamic Ideology
* Basic Principles of Islam
* Definition and Function of an Islamic Welfare State(pg 1 - 5)
* Islam and Modernism
* Promotion of Peace, Tolerance and Coexistence in Islam (Pg 8 – 11)

2. CHAPTER – II: CONSTITUTIONAL AND POLITICAL DEVELOPMENT IN PAKISTAN

* Constitutional Evolution in Pakistan
* Functions and Problems of Democracy in Pakistan
* Constitution: 1956, 1962, 1973 (Pg 14 – 24)

3.CHAPTER – III: PAKISTAN'S ADMINISTRATIVE SYSTEM

* Federal Structure under the 1973 Constitution
* Structure of Provincial Government
* Role of Judiciary under the 1973 Constitution (Pg 36 - 40)
* Structure and Function of Local Government (Pg 45– 47)

4. CHAPTER – V: EDUCATION, SPORTS AND TOURISM IN PAKISTAN

* Concept, Goal, Main Features of Educational System in Pakistan
* Professional, Technical and Vocational Education in Pakistan
* Challenges of Education in Pakistan (Pg 68 – 73)

Recommended Book: Pak-Studies Part-II

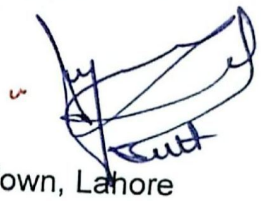
Authors: Dr. Rashid Hameed, Executive Director, National Language Promotion Department, Islamabad
Zulfiqar Ali, Associate Professor, Govt. Graduate College, Railway Road, Lahore
Qamar Abbas, Assistant Professor, Govt. Graduate College of Science, Wahdat Road, Lahore

Published by: Punjab Education, Curriculum, Training and Assessment Authority (PECTAA)

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CERTIFICATE

It is certified that the customized syllabus of **PAK-STUDIES** has been devised from the revised textbooks of PECTAA.



Teacher Name: Mrs. Noor Javed Butt (Instructor BS-17)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE
CUSTOMIZED SYLLABUS FOR DIT (02 Year)
MATHEMATICS-II

Total Marks:	100
Total Weeks:	20
Contact Hours per Week:	06
Total Contact Hours:	120

UNIT-I (Graphical Representation of Functions) **10H**

1.1 Graph of Quadratic Function Using Factors (Exercise 1.1 Complete)
1.2 Predicting a Quadratic Function from its Graph
1.3 Algebraic and Transcendental Functions (Exercise 1.2 Q# 1, 2, 3, 4, 5, 6)
1.3.1 Fundamental Transcendental Functions
1.3.2 Non Fundamental Transcendental Functions
1.4 Exponential Functions
1.4.1 Graph of the Exponential Function
1.4.2 Properties of the Exponential Function
1.6 Logarithmic Function
1.6.1 Graphical Behavior of Logarithmic Functions
1.6.2 Graph of Logarithmic Function
1.7 Modulus Function and Its Graph
1.10 Solving Problems Involving Exponential and Logarithmic Equations and Inequalities
(Exercise 1.4 Q# 1 Complete)

UNIT-II (Further Differentiation) **20H**

2.1 Review of Differentiation Basics (Exercise 2.1 Complete)
2.2 Derivative of Trigonometric Functions
2.3 The Chain Rule
2.3.1 Composition of Functions
2.3.2 Derivative of a Function Given in the Form of Parametric Equations
2.3.3 Implicit Differentiation
2.4 Derivative of Inverse Trigonometric Functions
2.5 Derivative of Exponential Functions
2.6 Derivative of Logarithmic Functions (Exercise 2.2 Complete)
2.7 Equations of Tangent and Normal Lines to a Curve
2.8 Higher-Order Derivatives (Exercise 2.3 Q# 1, 4, 5, 6, 10, 11)
2.9 Increasing and Decreasing Functions
2.9.1 Stationary Point
2.9.2 Critical Point
2.10 Relative and Absolute Extrema
2.10.1 Global (Absolute) Maxima
2.10.2 Global (Absolute) Minima

2.10.3 Method to Find Global Extrema of a Continuous Functions Defined on a Closed Interval [a, b]
2.10.4 Second Derivative Test (Exercise 2.4 Q# 1, 2, 5, 6)
2.12 Differentials
2.12.1 Using dy to Approximate Δy (Exercise 2.4 Q# 1, 2)

UNIT-III (Integration) **20H**
3.1 Anti-derivatives and The Indefinite Integral (Exercise 3.1 Complete)
3.1.1 Basic Rules of Integration
3.1.2 Some Useful Formulae
3.2 Method of Substitution or Change of Variable
3.3 Trigonometric Substitution (Exercise 3.2 Complete)
3.4 Integration by Parts (Exercise 3.3 Q# 1 to 10)
3.5 Integration by Using Partial Fractions (Exercise 3.4 Q# 1 to 7)
3.6 The Definite Integral
3.6.1 Properties of the Definite Integrals (Exercise 3.5 Q# 1 to 10)
3.7 Application of Definite Integrals
3.7.1 Area Under the Curve (Exercise 3.6 Q# 1, 2, 3, 4, 5)

UNIT-IV (Differential Equations) **10H**
4.1 Differential equations: Definition, Order and Degree (Exercise 4.1 Q# 1)
4.2 Solution of First-Order and First –Degree Differential Equations
4.2.1 Separable Differential Equation
4.2.2 Homogeneous Differential Equation (Exercise 4.2 Q# 1 to 10, and Q# 22 to 25)

UNIT-V (Analytical Geometry) **08H**
5.1 Equation of Straight Lines (Exercise 5.1 Complete)
5.2 A Linear Equation in Two Variables Represents a Straight Line
5.2.1 Transform the General Linear Equation to Standard Forms
5.3 Equations of Medians, Altitudes and Right Bisectors
5.4 Condition of Concurrency of Three Straight Lines
5.5 Equation of Lines Through the Point of Intersection of Two Lines
5.6 Angle Between Two Lines
5.7 Area of a Triangular Region Whose Vertices are Given (Exercise 5.2 Q# 1 to 6)

UNIT-VI (Conic Section) **12H**
6.1 Circle (Exercise 6.1 Q# 1 to 7)
6.1.1 Parametric Equations of a Circle
6.1.2 General Form of an Equation of a Circle
6.1.3 Working Rule to Find the Center and Radius of a Circle in General Form
6.1.4 Equation of a Circle with Given End Points of a Diameter
6.1.5 Equations of Circles Determined by Given Conditions
6.2 Tangent and Normal to a Curve (Exercise 6.2 Complete)
6.2.1 Equation of a Tangent to a Circle
6.2.2 Rules for Writing the Equation of a Tangent to a Circle
6.2.3 Equation of Normal to a Circle at $P(x_1, y_1)$
6.2.4 Position of Point with Respect to a Circle
6.2.5 Intersection of a Line and a Circle
6.2.6 Tangents from a Point to a Circle

6.2.7 Length of the Tangent from a Point to a Circle
6.2.8 Rule to Find the Length of the Tangent
6.3 Parabola (Exercise 6.3 Q# 1, 2)
6.3.1 Standard Equation of the Parabola
6.3.2 Elements of the Parabola
6.3.3 Other Standard Forms of the Parabola
6.4 Ellipse
6.4.1 Key Features of Ellipse
6.4.2 Summary of Important Results (Exercise 6.4 Q# 1, 2)
6.5 Hyperbola (Exercise 6.5 Q# 1, 2)
6.5.1 Key Features of Hyperbola
6.5.2 Summary of Important Results

UNIT-VII (Kinematics) **05H**
7.1 Rectilinear Motion (Exercise 7.1 Q# 1, 2, 3)
7.1.1 Scalars
7.1.2 Vectors
7.1.3 Displacement, Average Velocity and Acceleration
7.1.4 Displacement-Time Graph
7.1.5 Velocity-Time Graph

UNIT-VIII (Numerical Solutions of Nonlinear Equations) **08H**
8.1 Basic Principles of Approximating Real Roots of Nonlinear Equations
(Exercise 8.1 Complete)
8.1.1 Location of Root Theorem
8.2 Graphical Method for Approximating Real Roots
8.3 Numerical Methods for Solving Nonlinear Equations (Exercise 8.2 Q# 1, 2)
8.3.1 General Rule of Accuracy, Tolerance and Calculator Setup
8.3.2 Bisection Method
8.3.3 Regula-Falsi Method (False Position Method)

UNIT-IX (Inverse Trigonometric Functions and Their Graphs) **07H**
9.1 Inverse Trigonometric Functions and Their Graph (Exercise 9.1 Q# 1, 2, 3)
9.1.1 Inverse of the Sine Function
9.1.2 Inverse of the Cosine Function
9.1.3 Inverse of the Tangent Function
9.1.4 Inverse of the Cosecant Function
9.1.5 Inverse of the Secant Function
9.1.6 Inverse of the Cotangent Function
9.2 Sum and Difference Formulas for Inverse Trigonometric Functions
(Exercise 9.2 Q# 1 to 7 and Q# 13, 14, 18, 20)

UNIT-X (Solution of Trigonometric Equations) **06H**

10.1 Trigonometric Equation (Exercise 10.1 Q# 1 to 10)

UNIT-XI (Vector Valued Functions and Their Differentiations) **06H**

11.1 Scalar and Vector-Valued Functions of a Single Variable
(Exercise 11.1 Complete)
11.1.1 Scalar Functions
11.1.2 Vector-Valued Function
11.1.3 Constructing a Vector-Valued Function
11.2 Domain and Range of a Vector-Valued Function
11.2.1 Steps to Find the Domain of a Vector-Valued Function
11.3 Identifying Scalar and Vector Valued Functions
11.3.1 Key Identification Criteria

Recommended Books: Mathematics Part-II

Authors: Mazhar Hussain
Naveed Akhter
Javed Ali
Ghulam Murtaza
Majid Hameed
Dr. Taimor Iqbal

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CERTIFICATE

It is certified that the customized syllabus of **MATHEMATICS-I**
has been devised from the revised textbooks of PECTAA.

Teacher Name: Dr. Arsal Kamal (Mathematics)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE
CUSTOMIZED SYLLABUS FOR DIT (02 Year)
ECONOMICS-II

Total Marks:	100
Total Weeks:	20
Contact Hours per Week:	06
Total Contact Hours:	120

Chapter–I: National Income

Concept	Content 2 weeks
1. National Income 2. When saving is equal to investment. 3. How of national income 4. Per Capita Income	1. G.N.P., N.N.P., G.D.P., National Income 2. Methods of computing national income: i. Product Method ii. Income Method Concept of Equilibrium: MPC, MPS Y = C + S Y = C + I vi. Income where S = I

Chapter–II: Money

Concept	Content 2 weeks
1. Barter System 2. Money and its function 3. Credit Cards	1. Barter system and its difficulties. 2. Evolution of money 3. Definition of money and its Functions 4. Instruments of money (Credit Cards, ATM, Traveller Cheques.

Chapter–III: Banks

Concept	Content 2 weeks
1. Bank 2. Commercial bank. 3. Interests	1. Bank and kindsof banks 2. Commercial Bank and its functions 3. Define interest and interest free banking in Pakistan

Chapter–IV: International Trade

Concept	Content 2 weeks
1. Foreign Trade. 2. Domestic Trade. 3. Balance of Payment. 4. Balance of Trade 5. Meaning and improving role Globalization	1. Differentiation between domestic and foreign trade 2. Advantages and disadvantages of international trade 3. Balance of Trade vs. Balance of Payment 4. Globalization, MNCs, TNCs, WTO

Chapter-V: National Income of Pakistan

Concept	Content 2 weeks
1 National Income. 2. GNP, GDP, NNP. 3. Product, Personal Income, Disposable Income, Total Income	1. Its size and sectoral contribution. 2. Difficulties in measurement. 3. Causes of low per capita income

Chapter-VI: Public Finance of Pakistan

Concept	Content 2 weeks
1. Public Finance. 2. Revenue. 3. Zakat 4. Ushr 5. Charity	1. Kinds of taxation in Pakistan 2. Sources of revenue 3. Zakat and its distribution 4. Ushr source of revenue

Chapter-VII: Foreign Trade of Pakistan

Concept	Content 2 weeks
1. Export 2. Import 3. Regional Organization 4. International Organization.	1. Major exports of Pakistan 2. Major imports of Pakistan. 3. Balance of payments position of Pakistan 4. Role of ECO, SAARC, WTO

Chapter-VIII: Economic System of Islam

Concept	Content 2 weeks
1. Islamic Economic System 2. Different Economic Systems	1. Economic System 2. Characteristic of Islamic ECONOMIC system 3. Comparison between capitalistic, Socialistic and Islamic system 4. Interest free banking System 5. Elimination of wealth Concentration and wasteful consumption.

Recommended Book: Economics Part-II

Authors: Mian Muhammad Akram
Mahmood Ahmad Ch

Editors: Rubina Qamer Qureshi

Published by: Imtiaz Book Depot, Lahore

Punjab Education, Curriculum, Training and Assessment Authority (PECTAA)

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CERTIFICATE

It is certified that the customized syllabus of **ECONOMICS-II** has been devised from the revised textbooks of PECTAA.

Teacher Name: Naseer Ahmed (Principal BS-19)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE
CUSTOMIZED SYLLABUS FOR DIT (02 Year)
STATISTIC-II

Total Marks: 100
Total Weeks: 20
Contact Hours per Week: 06
Total Contact Hours: 120

Chapter 10 — NORMAL DISTRIBUTION

Normal Distribution, Standard Normal Random Variable, Standard Normal Distribution, Standard Normal Cumulative Distribution Function, De-standardizing, Quantiles of Standard Normal Distribution, Use of Standard Normal Tables for any Normal Distribution, Finding the Values of μ or σ or both.

Chapter 11 — SAMPLING TECHNIQUES AND SAMPLING DISTRIBUTIONS

Population (or Universe), Sample, Sampling Design, Non-probability (Non-random) Sampling, Probability (Random) Sampling, Simple Random Sampling, Stratified Sampling, Errors, Simple Random Sampling and Sampling Distributions, Sampling Distribution of a Statistic, Sampling Distributions from General Populations, Sampling Distribution of the Sample Mean, $\bar{X}$, Sampling Distribution of the Difference Between Two Sample Means, $\bar{X}_1 - \bar{X}_2$.

Chapter 12 — ESTIMATION

Statistical Estimation, Point Estimation of a Parameter, Unbiasedness, Best Estimator, Pooled Estimators from Two Samples, Interval Estimation, Confidence Interval for Population Mean, μ, Confidence Interval for Population Proportion of Success, π, Comparative Studies, Confidence Interval for Difference Between Two Population Means, $\mu_1 - \mu_2$.

Chapter 13 — HYPOTHESIS TESTING

The Elements of a Test of Hypothesis, Test of Hypothesis about a Population Mean, μ, Test of Hypothesis about the Difference Between Two Population Means—Independent Samples, Inference about the Difference Between Two Population Means—Dependent Samples.

Chapter 14 — SIMPLE LINEAR REGRESSION AND CORRELATION

Relations Between Variables, Regression Analysis, Simple Linear Regression, The Simple Linear Regression Model, Simple Linear Correlation, Correlation Analysis.

Chapter 15: ASSOCIATION

- Multinomial Populations
- Attribute (Qualitative Variable)
- Independence of Attributes
- Association of Attributes
- Two-Dimensional Count Data

Chapter 16: ANALYSIS OF TIME SERIES

- Time Series. Components of a Time Series
- Analysis of Time Series. Estimation of Secular Trend

Chapter 17: ORIENTATION OF COMPUTERS

- Introduction to Computer. Types of Computers. Classification of Computers
- Hardware and Software. Input Devices and Output Devices
- System Software. Operating System. Application Software
- Programming Languages. Language Processors and Number System
- Binary System as a Foundation of Computer Programming

List of Practical's for Class XII (Part-II)

Topics:

1. Normal Distribution. 2. Sampling. 3 Estimation. 4. Testing of Hypothesis
2. Correlation Association. Time Series

Recommended Book: Statistics Part-II

Author: Prof. Muhammad Rauf Chaudhary,
Govt. College for Boys Gujranwala.

Editors:
Mr. Mazhar Hayat, Subject Specialist

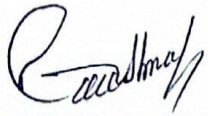
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For Punjab Textbook Board, Lahore

Punjab Education, Curriculum, Training and Assessment Authority

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CERTIFICATE

It is certified that the customized syllabus of **STATISTICS-II** has been devised from the revised textbooks of PECTAA.



Teacher Name: Naseer Ahmed (Principal BS-19)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE
CUSTOMIZED SYLLABUS FOR DIT (02 Year)
MUTALAE QURAN-E-HAKEEM-II

Total Theory Marks:	50
Total Weeks:	20
Contact Hours Per Week:	03
Total Contact Hours:	60

1 - قرآنِ مجید کے آداب

2 - ہدایات برائے اساتذہ کرام

3 - سُوْرَةُ النِّسَاءِ: تعارف، مرکزی موضوع، بنیادی مضامین، متن و ترجمہ اور مشق

4 - سُوْرَةُ النُّورِ: تعارف، مرکزی موضوع، بنیادی مضامین، متن و ترجمہ اور مشق

5 - سُوْرَةُ الْأَحْزَابِ: تعارف، مرکزی موضوع، بنیادی مضامین، متن و ترجمہ اور مشق

6 - سُوْرَةُ الْحُجُرَاتِ: تعارف، مرکزی موضوع، بنیادی مضامین، متن و ترجمہ اور مشق

7 - سُوْرَةُ الْمُجَادِلَةِ: تعارف، مرکزی موضوع، بنیادی مضامین، متن و ترجمہ اور مشق

8 - سُوْرَةُ الصَّفِّ: تعارف، مرکزی موضوع، بنیادی مضامین، متن و ترجمہ اور مشق

9 - سُوْرَةُ الْجُمُعَةِ: تعارف، مرکزی موضوع، بنیادی مضامین، متن و ترجمہ اور مشق

10 - سُوْرَةُ الطَّلَاقِ: تعارف، مرکزی موضوع، بنیادی مضامین، متن و ترجمہ اور مشق

11 - سُوْرَةُ التَّحْرِيمِ: تعارف، مرکزی موضوع، بنیادی مضامین، متن و ترجمہ اور مشق

12 - رموزِ اوقافِ قرآنِ مجید

(درج ذیل آیات مبارکہ کے بامحاورہ ترجمے کا امتحان لیا جائے گا)

سورۃ النساء 1 تا 2، 9 تا 10، 29 تا 32، 58 تا 59

سورۃ النور 1 تا 3، 28 تا 31، 55 تا 56

سورۃ الاحزاب 35 تا 36، 40 تا 48، 56 تا 59، 70 تا 71

سورۃ الحجرات 1 تا 5، 10 تا 13

کتاب کا نام : ترجمۃُ القرآنِ المجید (بارھویں جماعت کے لیے)

مصنف: ڈاکٹر فخر الزمان محمد صفدر جاوید

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CERTIFICATE

It is certified that the customized syllabus of

MUTALAE QURAN-E-HAKEEM-II

has been devised from the revised textbooks of PECTAA.

Teacher Name: Waseem (Instructor BS-17) Waseem

Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE
CUSTOMIZED SYLLABUS FOR DIT (02 Year)
CIVICS- II

Total Theory Marks:	50
Total Weeks:	20
Contact Hours Per Week:	03
Total Contact Hours:	60

Detailed Course Contents

1.CHAPTER – I: PAKISTAN MOVEMENT

* Meaning and Significance of Ideology
* Ideology of Pakistan
* Aligarh Movement (Pg 1 – 15)

2.CHAPTER – III: SOCIAL SERVICES IN PAKISTAN

* Health Structure
* Education (Pg 75 – 84)

3.CHAPTER – IV: SOCIAL ORDER IN PAKISTAN

* Significance of Social Order
* Islamic Perspective: Ideological Order
* Role of Police in Pakistan (Pg 85 – 90)

4.CHAPTER – VI: PAKISTAN AND THE WORLD

* Meaning of Foreign Policy
* Determinants of Pakistan's Foreign Policy
* Pakistan's Foreign Relations with Neighbour...

Recommended Book: Civics
Authors: Prof. Aftab Ahmad Dar, Prof. Haleema Afridi
Published by: Punjab Education, Curriculum, Training and Assessment Authority (PECTAA)

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CERTIFICATE

It is certified that the customized syllabus of **CIVICS-II**
has been devised from the revised textbooks of PECTAA.

Teacher Name: Mrs. Noor Javed Butt (Instructor BS-17)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE
CUSTOMIZED SYLLABUS FOR DIT (02 Year)
ETHICS- II

غیر مسلموں کے لیے متبادل ترجمۃ القرآن

Total Theory Marks:	50
Total Weeks:	20
Contact Hours Per Week:	03
Total Contact Hours:	60

1۔مذہب کا تعارف	مذہب کی تعریف مختلف ماہرین کی نظر میں	مذہب اور دین کی تعریف	مذہب اور دین میں فرق	
	وحدتِ ادیان کا تصور	مذہب اور سائنس		
2۔پاکستان میں مختلف مذاہب	سناتن دھرم / ہندو دھرم	زرتشت مذہب	سکھ مذہب	
3۔اخلاقی اقدار	معاشرتی ادارے۔(مذہبی / تعلیمی)	کام کی جگہ پر وقت کی اہمیت		
4۔مشاہیر	نیلسن منڈیلا	ڈاکٹر محمد یونس	نجیب محفوظ	
5۔فرہنگ				

مصنفین : ڈاکٹر عبداللہ شاہد ہاشمی ڈاکٹر محمد شفیع مرزا

ناشر : بک سیلز انٹرنیشنل، لاہور

Recommended Books Ethics Part-II
Punjab Education, Curriculum, Training and Assessment Authority (PECTAA)

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CERTIFICATE

It is certified that the customized syllabus of **ETHICS-II**
has been devised from the revised textbooks of PECTAA.

Teacher Name: Tanvir Hussain Abid (Sr.Instructor BS-18)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore

PUNJAB BOARD OF TECHNICAL EDUCATION LAHORE
CUSTOMIZED SYLLABUS FOR DIT (02 Year)
PHYSICS – II
(Theory 85 marks Practical 15 marks)

Total Marks:	100
Total Weeks:	20
Contact Hours per Week:	06
Total Contact Hours:	120

Chapter 13 — Thermal Physics

13.1 Brownian Motion
13.2 Kinetic Theory of Gases
13.3 Pressure in a Gas and Derivation of $PV = \frac{1}{3}Nm < v^2 >$
13.4 Average Translational Kinetic Energy of a Gas

Chapter 14 — Simple Harmonic Motion

14.1 Oscillatory Motion
14.2 Simple Harmonic Motion
14.3 Practical S.H.M Systems
14.4 Simple Harmonic Motion and uniform circular motion
14.5 Phase
14.7 Conservation of Energy in S.H.M
14.10 Resonance

Chapter 16 — Electrostatics/Static Electricity

16.1 Electric Potential Difference
16.2 Electric Potential
16.3 Electric Potential Energy
16.4 Capacitors
16.5 Parallel Plate Capacitors
16.6 Combined Capacitance of Capacitors
16.8 Charging and Discharging of a Capacitor
16.9 Exponential decay of Discharging Capacitor Through Resistor
16.10 Use of Capacitors

Chapter 17 — Alternating Current
17.1 Alternating Current and Its Characteristics
17.2 Relation between Mean Power and Maximum power for an alternating current
17.3 Phase of AC
17.4 AC Circuits
17.5 AC through Resistor
17.6 AC through Inductor
17.7 Choke
17.8 AC through Capacitor
17.9 Impedence
17.10 AC through RC-Series Circuit
17.11 AC through RL-Series Circuit
17.12 Navigating AC through RLC-Series Circuit
17.13 AC through RLC-Parallel Circuit
17.14 Rectification
17.16 Self Induction
17.17 Mutual Induction

Chapter 18 — Quantum Physics
18.1 Quantum Theory of Radiation
18.2 Photoelectric Effect
18.4 Wave Nature of Particles
18.5 Wave-Particle Duality
18.7 Atomic Spectra

Chapter 19 — Nuclear and Particle Physics
19.1 Mass Defect and Binding Energy
19.2 Nuclear Fission
19.4 Nuclear Fusion
19.5 Activity and Half-Life

Chapter 20 — Medical Physics
20.1 Ultrasound and Piezoelectric effect
20.2 Diagnostic use of Ultrasound in Medical Imaging
20.3 X-rays

Chapter 21 — Space and Environment
21.1 Luminosity of Stars
21.2 Radiant Flux Intensity
21.4 Blackbody Radiation
21.9 Earth's Climate System
21.11 Global Climate and Energy Transfer from The Sun

List of Experiment in Physics for class XII (Part-IV)

1. Verification of following relations of the simple pendulum;
   i. Time Period is independent of the amplitude.
   ii. Time period is independent of its mass or density of the bob.
   iii. Time period is directly proportional to the square root of its length.
2. To find the acceleration due to gravity by oscillating mass-spring system.
3. To study the charging and discharging of a capacitor and to measure time constant.
4. To study the relation between current and capacitance when different capacitors are used in A.C. circuit.
5. To determine the resistance of Galvanometer by half deflection method. Also calculate the current for full scale deflection (0-30 div.)
6. Conversion of Galvanometer into ammeter.
7. Conversion of Galvanometer into voltmeter.

Recommended Book: Physics Part-II

Authors:

- Prof. Muhammad Ali Shahid (Izaz-e-Fazeelat)
- Prof. (Rtd.) Muhammad Nisar
- Prof. Sheikh Nasir Iqbal
- Dr. Naveed Afzal
- Dr. Riaz Ahmad
- Muhammad Arshad
- Muhammad Attiq-us-Salam
- Dr. Mohsin Rafique

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CERTIFICATE

It is certified that the customized syllabus of **PHYSICS-II**
has been devised from the revised textbooks of PECTAA.

Teacher Name: Mrs. Fazila (Instructor BS-17)
Govt. Graduate College of Commerce, Hunza Block, Allama Iqbal Town, Lahore