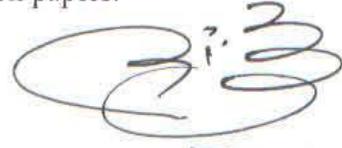# FEDERAL BOARD OF INTERMEDIATE AND SECONDARY EDUCATION
H-8/4, ISLAMABAD

NO.3-21/FBISE/RES/CC/266   14 October 2020

NOTIFICATION

In pursuance of Ministry of Federal Education and Professional Training Notification No.F.4(5)/2015-NCC/RE dated 13 October 2020 reduced syllabus for Classes 11th & 12th for HSSC Annual Examination 2021 is uploaded on FBISE's website www.fbise.edu.pk. However, there will be no change in the format and style of question papers.

(ZULFIQAR ALI RIZVI)
Director Research
Ph: 051-9269504

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13. Chat Room, FBISE

Reduced Syllabus

HSSC-I and HSSC-II
Examination 2021 under FBISE

National Curriculum Council
Ministry of Federal Education and
Professional Training

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REDUCED SYLLABUS
ENGLISH COMPULSORY HSSC-I

UNITS INCLUDED		UNITS EXCLUDED	
No.	**Title**	**No.**	**Title**
1.	Responsibilities of the Youth	6.	Mother to Son (poem)
2.	His First Flight	8.	Wasteland
3	Good Timber (poem)	11.	The Importance of Family
4	From Mother…With Love	16.	School Vs Education
5	It's Country for Me	18.	A Dream Within A Dream
7	Choice of Career	19.	Drug Abuse in the Youth of Pakistan
9	The White Lamb		
10	The World is Too Much with Us (poem)		
12	The Blanket		
13	Ozymandias (poem)		
14	A Long Walk Home		
15	University Days		
17	What You Do is What You Are		
20	How to Take a Job Interview		
21	The Road Not Taken (poem)		
22	The Progress		

NOTE: The inclusion &exclusion of units encompass the relevant exercises also.

REDUCED SYLLABUS
ENGLISH ELECTIVE-XI

NOTE: There will be no change in the following fields:
1. Any essay of relatively advance nature
2. A passage of fairly advanced prose for comprehension and precis writing
3. Grammar – Synthesis Idioms

Section "A" Functional English
1. Any essay of relatively advanced nature
2. A passage of fairly advanced prose followed by:
   a. A series of comprehension questions
   b. A precis of all parts of the passage

Section "B" Text
3. Poetry: The Magic Casement: Book-II (Poem No.5, 7, 11, 12, 16, 19 and 20 are excluded)
4. Prose: A new Anthology of Essays (Essay No.3, 5, 8, 11, 12, 13, 19 and 22 are excluded)
5. Grammar: Synthesis/Idioms

نصاب اردو لازمی
برائے جماعت گیارہ

حصہٴ نثر:

مصنف	شمار	عنوان	مصنف	ش ما ر	عنوان
مولوی ذکا اللہ	2	جھوٹے آدمی	سر سید احمد خان	1	اپنی مدد آپ
خدیجہ مستور	8	آنگن	ڈاکٹر سید عبد اللہ	4	پاکستانی قومیت کا مسئلہ
ابنِ انشا	11	شیراز اور کنار آب رکنا باد وغیرہ	خواجہ معین الدین	10	تعلیمِ بالغاں
(ا)مرزا غالبؔ (ب)علامہ اقبالؔ	14	مکاتیب	بشیر احمد بلوچ	13	لالچی وزیر (ترجمہ)

حصہٴ نظم:

شاعر	شمار	عنوان	شاعر	ش ما ر	عنوان
محسنؔ کاکوروی	2	نعت	ماہرؔ القادری	1	حمد
میر انیسؔ	5	دُر مراد (مرثیہ)	نظیرؔ اکبر آبادی	3	شہر آشوب
حفیظؔ جالندھری	9	جلوہٴ سحر	اکبرؔ الہ آبادی	8	نصیحت اخلاقی
عبد الرحمٰن بابا/مترجم طہٰ خان	13	اخلاص	سید ضمیرؔ جعفری	11	یہ سڑکیں

حصہٴ غزل:

1- فقیرانہ آئے صدا کر چلے .... میر تقی میرؔ
2- قتل عاشق کسی معشوق سے کچھ دور نہ تھا .... خواجہ میر دردؔ
3- ناگہ چمن میں جب وہ گل اندام آ گیا .... غلام ہمدانی مصحفیؔ
4- ہزاروں خواہشیں ایسی کہ ہر خواہش پہ دم نکلے .... مرزا غالبؔ
5- آئینہ اپنی نظر سے نہ جدا ہونے دو .... داغؔ دہلوی

نوٹ: حذْف شدہ عنوانات کے مصنفین، شعراء کا تعارْف اور مشقی سوالات بھی شاملِ نصاب نہیں ہوں گے۔

قواعد و انشا: صنعتوں اور اصنافِ سخن کی تعریف اور پہچان
صنائع: صنعتِ تلمیح، صنعت مراعاۃ النظیر، صنعتِ تضاد، صنعت حسنِ تعلیل، صنعتِ تضمین، صنعتِ لف و نشر
اصنافِ سخن: حمد، نعت، مرثیہ، شہر آشوب، غزل، نظم اور غزل میں فرق
مضمون، ناول، ڈراما، سفرنامہ، لوک کہانی، مکتوب نگاری، مطلع، مقطع، قافیہ، ردیف، تشبیہ، استعارہ، روزمرہ، محاورہ

حصہ انشا پردازی 1- روداد/مکالمہ 2- درخواست/خط 3- تلخیص

3

نصاب اردو (ادب)

جماعت گیارہویں

حصہ نثر

حصہ شاعری

ادبی مضامین

اصناف نظم و نثر: غزل، رباعی، قطعہ، مرثیہ، نظم، آزاد نظم، قصیدہ، حمد، نعت، منقبت، داستان، ناول، مختصر افسانہ، ڈراما، خاکہ، انشائیہ، سوانح، شخصیت نگاری (خاکہ)

4

نصاب اسلامیات (لازمی)

١۔ باب اوّل: بنیادی عقائد

ا۔ توحید ب۔ رسالت ہ۔ آخرت

٢۔ باب دوّم: اسلامی تشخص

ا۔ ارکانِ اسلام ب۔ اللہ تعالیٰ اور رسول ﷺ کی محبت واطاعت

د۔ معاشرتی ذمہ داریاں

٣۔ باب سوّم: اُسوۂ رسولِ اکرم ﷺ

ا۔ رحمۃ للّعالمین ب۔ اُخوت ج۔ مساوات

ہ۔ عفوو درگزر

٤۔ باب چہارم: تعارفِ قرآن وحدیث

ا۔ تعارفِ قرآن (قرآن مجید کی تعریف، قرآن مجید کے اسماء، قرآن مجید کی سورتوں کی خصوصیات، حضورﷺ کا آخری حج، قرآن مجید کوسورتیں اور آیات، قرآن مجید کی خوبیاں، قرآن مجید کی ترتیب)

ب۔ تعارفِ حدیث مکمل

ج۔ منتخب آیات (آیت نمبر 1 تا 12 ترجمہ ۔۔۔۔۔۔۔۔۔۔۔ آیت نمبر 1 تا 6 تشریح)

١۔ یٰۤاَیُّهَا الَّذِیۡنَ اٰمَنُوا اتَّقُوا اللّٰهَ وَ قُوۡلُوۡا قَوۡلًا سَدِیۡدًاۙ یُّصۡلِحۡ لَكُمۡ اَعۡمَالَكُمۡ وَ یَغۡفِرۡ لَكُمۡ ذُنُوۡبَكُمۡ ؕ وَ مَنۡ یُّطِعِ اللّٰهَ وَ رَسُوۡلَهٗ فَقَدۡ فَازَ فَوۡزًا عَظِیۡمًاO

٢۔ لَقَدۡ كَانَ لَكُمۡ فِیۡ رَسُوۡلِ اللّٰهِ اُسۡوَةٌ حَسَنَةٌ

٣۔ وَاعۡتَصِمُوۡا بِحَبۡلِ اللّٰهِ جَمِیۡعًا وَّ لَا تَفَرَّقُوۡاص

٤۔ اِنَّ اَكۡرَمَكُمۡ عِنۡدَ اللّٰهِ اَتۡقٰكُمۡ ؕ

٥۔ اِنَّ فِیۡ خَلۡقِ السَّمٰوٰتِ وَ الۡاَرۡضِ وَاخۡتِلَافِ الَّیۡلِ وَالنَّهَارِ لَاٰیٰتٍ لِّاُولِی الۡاَلۡبَابِO

٦۔ لَنۡ تَنَالُوا الۡبِرَّ حَتّٰی تُنۡفِقُوۡا مِمَّا تُحِبُّوۡنَ ؕ

٧۔ وَمَا اٰتٰاكُمُ الرَّسُوۡلُ فَخُذُوۡهُ � وَمَا نَهَاكُمۡ عَنۡهُ فَانۡتَهُوۡا ج

٨۔ اِنَّ الصَّلٰوةَ تَنۡهٰی عَنِ الۡفَحۡشَآءِ وَالۡمُنۡكَرِ ط

٩۔ وَلَاتَكۡسِبُ كُلُّ نَفۡسٍ اِلَّا عَلَیۡهَا ج وَ لَا تَزِرُ وَازِرَةٌ وِّزۡرَ اُخۡرٰی ج

١٠. إِنَّ اللّٰهَ يَأْمُرُ بِالْعَدْلِ وَ الْإِحْسَانِ

١١. إِنَّا نَحْنُ نَزَّلْنَا الذِّكْرَ وَ إِنَّا لَهُ لَحٰفِظُوْنَ ٥

١٢. يٰٓاَيُّهَا الَّذِيْنَ اٰمَنُوا كُتِبَ عَلَيْكُمُ الصِّيَامُ

د. منتخب احادیث مكمل

١. إِنَّمَا الْاَعْمَالُ بِالنِّيَّاتِ، وَ إِنَّمَا لِكُلِّ امْرِئٍ مَّانَوٰى

٢. إِنَّمَا بُعِثْتُ لِاُتَمِّمَ حُسْنَ الْاَخْلَاقِ

٣. لَا يُؤْمِنُ اَحَدُكُمْ حَتّٰى اَكُوْنَ اَحَبَّ اِلَيْهِ مِنْ وَّالِدِهِ وَ وَلَدِهِ وَالنَّاسِ اَجْمَعِيْنَ

٤. لَا يُؤْمِنُ اَحَدُكُمْ حَتّٰى يُحِبَّ لِاَخِيْهِ مَا يُحِبُّ لِنَفْسِهِ

٥. اَلْمُسْلِمُ مَنْ سَلِمَ الْمُسْلِمُوْنَ مِنْ لِّسَانِهِ وَيَدِهِ

٦. لَا يَرْحَمُهُ اللّٰهُ مَنْ لَّا يَرْحَمُ النَّاسَ

٧. كُلُّ الْمُسْلِمِ عَلَى الْمُسْلِمِ حَرَامٌ دَمُهُ وَ مَالُهُ وَ عِرْضُهُ

٨. مَا عَالَ مَنِ اقْتَصَدَ

٩. مَنْ سَلَكَ طَرِيْقًا يَطْلُبُ فِيْهِ عِلْمًا سَلَكَ اللّٰهُ بِهِ طَرِيْقًا مِّنْ طُرُقِ الْجَنَّةِ

١٠. اَلْمُؤْمِنُ اَخُو الْمُؤْمِنِ كَالْجَسَدِ الْوَاحِدِ اِنِ اشْتَكٰى شَيْئًا مِّنْهُ وَجَدَ اَلَمَ ذٰلِكَ فِيْ سَآئِرِ جَسَدِهِ

١١. اَلْجَنَّةُ تَحْتَ اَقْدَامِ الْاُمَّهَاتِ

١٢. اَلصِّدْقُ يُنْجِيْ وَ الْكِذْبُ يُهْلِكُ

اسلامیات اختیاری گیارہویں جماعت کے لیے

الف۔ القرآن الحکیم: سورۃ البقرہ ایک سے پانچ رکوع تک   ب۔   الحدیث:ایک سے پندرہ احادیث اربعین امام نودی

ج۔ سیاسی و ثقافتی تاریخ اسلام، سیرت النبیﷺ، خلافت راشدہ   د۔   فقہ اسلامی (اسلامی قانون کے ماخذ)

ضمیمہ پرچہ اول

الف۔ القرآن الحکیم (سورۃ البقرہ)

1- تعارف، وحی، مکی اور مدنی سورتوں کی خصوصیات 2-   سورۃ البقرہ ایک سے پانچ رکوع تک ترجمہ و تشریح

ب۔ الحدیث

1- حدیث و سنت کا مفہوم، اہمیت   2-   ایک سے پندرہ احادیث اربعین امام نودی فقط ترجمہ

ج۔ سیاسی و ثقافتی تاریخ اسلام

2- سیرت النبیﷺ

تبلیغ اسلام و مشکلات، ہجرتِ حبشہ و مدینہ، غزوات، صلح حدیبیہ، فتح مکہ، حجۃ الوداع، آنحضرتﷺ بحیثیت مصلح اعظم انسانیت

3- خلافتِ راشدہ

1- حضرت ابوبکر صدیقؓ: انتخاب خلافت، فتنہ ارتداد اور باغیوں کی سرکوبی، سیرت و کارہائے نمایاں

2- حضرت عمر فاروقؓ: اشاعت و فروغ اسلام، اصلاحات، سیاسی، فوجی، عدالتی اور معاشرتی، سیرت و اخلاق

3- حضرت عثمان غنیؓ: اشاعت و فروغ اسلام، شہادت، سیرت و اخلاق

4- حضرت علی کرم اللہ وجہہ: نظام حکومت، شہادت، سیرت و اخلاق

5- خلفائے راشدین کے عہد میں اسلام کی ترقی اس کے سیاسی سماجی اقتصادی اور تمدنی پہلو

6- خلافتِ راشدہ اور انتخاب

د۔ فقہ اسلامی (اسلامی قانون) ماخذ

1- القرآن   2- الحدیث   3- اجماع   4- قیاس

REDUCED SYLLABUS
ISLAMIC HISTORY-XI

I.   Pre-Islamic Arabia

Religious, Social Economic and Political conditions of Pre-Islamic Arabia

II.   Early Life of Rasullah (S.A.W.)
1. Birth and family background of Rasullah (S.A.W)
2. Life before NUBUWAHT
3. Life after declaration of NUBUWAHT

III.   Spread of Islam at Makkah
1. Migration to Habshah
2. Journey to Taif and Miraj
3. The pledges of Aqaba

IV.   Spread of Islam at Madina
1. Hijrat and its significance
2. Islamic brotherhood
3. Misaq-e-Madina
4. Battle of Badr, Uhad, Ahzab, Khyber, Hunain and Tabuk
5. Baite-Rizwan
6. Conquest of Makkah
7. HajjatulWidda and the Last Sermon features

V.   Seerat-un-Nabi (S.A.W)

Muhammad Rasullah (S.A.W)
1. As a Prophet
2. As a Statesman

VI.   Khalafat-e-Rashdah
1. Hazrat Abu Bakar Siddique: Introduction, initial difficulties, its remedies and contribution towards Islam
2. HazratUmer Farooq: Introduction, Conquest (Qadsia and Yermook), administrative system, contribution towards Islam and achievements
3. Hazrat Usman Ghani: Introduction, contribution towards Islam, martyrdom its causes, events and results
4. Hazrat Ali Murtaza: Introduction, difficulties and events
5. Achievements of Khalafat-e-Rashdah

REDUCED SYLLABUS
HISTORY OF PAKISTAN-XI

I.   Difficulties Faced by Pakistan after Independence
1.   Red Cliff's Award and its injustice
2.   Accession of Princely States –Kashmir
3.   Refugee's problem
4.   Administrative issues
5.   Water dispute

II.   Constitutional Developments in Pakistan upto 1962
1.   Objective Resolution
2.   Salient features of:
    a.   1956 Constitution
    b.   1962 Constitution Salient features

III.   Socio-Political Developments in Historical Perspective During 1962 – 1969
1.   Formation of one Unit
2.   Imposition of Martial Law
3.   Industrial and agriculture reforms
4.   1965 War in relation to:
    i.   The aggressive and inflexible attitude of Indian governments towards Pakistan

IV.   Anatomy of the Happenings from 1969 to 1971
1.   Fall of Ayub's regime and Yahyah's Marshal Law
2.   Elections 1970
3.   Impact of 1970's elections
4.   Sheikh Mujeb's six points
5.   Army action and role of political parties
6.   Causes and lessons learnt from the debacle of Pakistan 1971

V.   Pakistan Foreign Policy
1.   Main features of foreign policy
2.   Relations bonds with neighbouring countries
3.   Relations with Saudi Arabia

REDUCED SYLLABUS
PHYSICS-XI

01. MEASUREMENTS
    1.2   Supplementary units (Radian, Steradian)
    1.8   Precision and accuracy
    1.9   Dimensions of physical quantities.

02. VECTORS AND EQUILIBRIUM
    2.6   Addition of vectors by rectangular components.
    2.7   Product of vectors.
    2.9   Torque
    2.10   Equilibrium.
    2.11   Conditions of equilibrium.

03. FORCES AND MOTION
    3.8   Linear momentum.
    3.9   Collisions
    3.11   Projectile Motion.

04. WORK AND ENERGY
    4.1   Work done by a constant force, work done by a variable force.
    4.2   Work done in a gravitational field.
    4.6   Absolute Potential energy.
    4.7   Escape velocity.

05. ROTATIONAL AND CIRCULAR MOTION
    5.1   Angular Motion
    5.2   Relation between angular and linear quantities.
    5.3   Centripetal Force and Centripetal Acceleration
    5.4   Torque and moment of inertia.
    5.5   Angular momentum and torque.
    5.6   Conversation of Angular Momentum
    5.7   K.E of rotation.
    5.8   Rolling of a Disc and hoop down the inclined plane.

06. FLUID DYNAMICS
    6.1   Viscous Fluids
    6.2   Fluid Friction and Stoke's Law
    6.3   Terminal Velocity
    6.4   Equation of continuity.

07. OSCILLATIONS
    7.4   Circular motion and S.H.M.
    7.5   Simple Pendulum.
    7.7   Resonance
    7.9   Phase
    7.10   Damped Oscillations

08.   WAVES
       8.4   Speed of sound.
       8.8   Beats
       8.9   Reflection of Waves and Phase Change
       8.10   Stationary Waves.
       8.11   Transverse Stationary waves in a stretched string.
       8.13   Resonance of air column and organ pipes.
       8.14   Doppler effect.

09.   PHYSICAL OPTICS
       9.3   Huygen's Principle.
       9.4   Coherent Sources.
       9.5   Interference of Light.
       9.8   Michelson's interferometer.
       9.9   Diffraction of Light
       9.10   Diffraction at a Single Slit
       9.11   Diffraction grating.
       9.12   Diffraction of x-rays by crystals.
       9.13   Polarization of light, Applications of polarized light.

10.   THERMODYNAMICS
       10.5   Thermodynamic System.
       10.6   Reversible and Irreversible Processes
       10.7   First law of thermodynamics.
       10.8   Molar specific heat of a gas.
       10.9   Heat engine.
       10.10   Second law of thermodynamics.
       10.11   Carnot heat engine.
       10.13   Entropy.

NOTE: All MCQs, short questions and problems relevant to the abovementioned topics are
       included.

REDUCED SYLLABUS
BIOLOGY HSSC-I

NOTE:
1. Only topic based relevant MCQs, Short and Long Questions are included.
2. All information in side boxes is excluded.

1. CELL STRUCTURE AND FUNCTION
    1.2   Cell Wall and Plasma Membrane – The Boundary Wall
    1.3   Cytoplasm and Organelles
    1.4   Prokaryotic and Eukaryotic Cells
2. BIOLOGICAL MOLECULES
    2.3   Carbohydrates
            (Examples of Polysaccharides are **excluded**)
    2.4   Proteins
          2.4.1   Structure of Proteins (Amino Acids and Peptide Linkages)
          2.4.2   Classification of Proteins (Globular and Fibrous Proteins)
          2.4.3   Role of Proteins
    2.5   Lipids
          2.5.1   Classification (Acylglycerols)
          2.5.2   Properties of Fatty acids
             (Waxes, Terpenes, Steroids, Prostaglandins are **excluded**)
    2.6   Nucleic Acids
          2.6.1   Chemical Structure of Nucleic Acids
          2.6.3   Watson & Crick Model of DNA
          2.6.4   Concept of Gene
          2.6.5   RNA
3. ENZYMES
    3.1   Structure of Enzymes
    3.2   Mechanism of Enzyme Action
    3.4   Enzyme Inhibition (Competitive and Noncompetitive Inhibitors)
4. BIOENERGETICS
    4.1   Photosynthesis
          4.1.1   Role of Light
          4.1.2   Role of Photosynthetic Pigments
          4.1.3   Absorption Spectrum and Action Spectrum
          4.1.4   Arrangements of Pigments
          4.1.5   Role of Carbon dioxide
          4.1.6   Role of water
          4.1.7   Mechanism of Photosynthesis
          4.1.8   Light Dependent Phase
          4.1.9   Light Independent Phase
    4.2   Cellular Respiration
          4.2.3   Mechanism of AerobicRespiration
          4.2.4   Oxidation of Pyruvates
          4.2.5   Kreb's Cycle
          4.2.6   Electron Transport Chain
          4.2.7   Chemiosmosis & Oxidative Phosphorylation
5. ACELLULAR LIFE
    5.3   Bacteriophage
    5.3.1   Structure of Bacteriophage
    5.3.2   Life Cycle of Bacteriophage
    5.3.3   Infection Process
    5.3.4   Replication of Bacteriophage
    5.3.5   Replication of Bacteriophage in Lysogenic cycle

(Uses of Bacteriophages in Genetic Engineering is **excluded**)

    5.4   Human Immuno Deficiency Virus
    5.4.1   Structure of HIV
    5.4.2   Life Cycle of HIV

6. PROKARYOTES
    6.2   Archaea
    6.3   Bacteria; Ecology and Diversity
    6.4   Structure; Shape and Size of Bacteria
    6.5   Modes of Nutrition in Bacteria
    6.6   Growth and Reproduction in Bacteria

7. PROTISTS AND FUNGI
    7.2   Major groups of Protists (protozoa, algae, myxomycota, oomycota)
    7.3   General characteristics of Fungi
    7.4   Diversity among Fungi (Zygomycota, Ascomycota, Basidiomycota)

8. DIVERSITY AMONG PLANTS
    8.2   Nonvascular Plants (General characteristics)
    8.3   Seedless Vascular Plants (General characteristics)
        8.3.1   Evolution of Leaf
    8.4   Seed Plants
        8.4.2   Gymnosperms (General characteristics)
        8.4.3   Angiosperms (General characteristics and Life cycle)
        8.4.6   Inflorescence **excluded**

9. DIVERSITY AMONG ANIMALS
    9.1   Characteristics of animals
    9.2   Criteria for animal classification
    9.3   Diversity in Animals
        9.3.1   Invertebrates
        9.3.2   Vertebrates
        (NOTE: Evolutionary adaptations of invertebrate phyla and of vertebrate classes are **excluded**)
        Classification of Chordates **excluded**

10. FORM AND FUNCTIONS IN PLANTS
        10.3.1 Uptake of Water by Roots and Pathways
        10.3.2 Ascent of Sap
        10.3.3 Opening and Closing of Stomata
        10.3.4 Translocation of Organic Matter
    10.6   Growth and Development in Plants
        10.6.1 Tissues for Growth – Apical and Lateral Meristems
        10.6.2 Primary and Secondary Growth
        10.7.2 Geotropism and Phototropism
        10.7.4 Vernalization

11. DIGESTION
    11.1   Digestive System of Man
        11.1.1 Alimentary Canal; Structural and Functional details

12. CIRCULATION
    12.1   Blood Circulatory System of Man
        12.1.1 Heart
            12.1.1.1 Structure of Heart
            12.1.1.3 Heartbeat and its Control
        12.1.2 Blood Vessels (Arteries, Capillaries and Veins)
    12.3   Lymphatic System of Man

13. IMMUNITY
    13.1   First Line of Defense (Skin, Digestive Tract, Air Passageway)
    13.2   Second Line of Defense – The Nonspecific Defenses
        13.2.1 Killing Cells of Blood
        13.2.2 Protective Proteins

REDUCED SYLLABUS
CHEMISTRY-XI

1. **STOICHIOMETRY**
   Introduction
   1.1   Mole
   1.2   Avogadro's Number
   1.3   PercentageComposition
   1.4   Excess and LimitingReagents
   1.5   Percentage Yield

2. **ATOMICSTRUCTURE**
   Introduction
   2.4   Bohr's Atomic Model and its applications
      2.4.1 - 2.4.5   Derivation of Radius, Energy, Frequency, Wave Length, Wave Number
      2.4.6   Defects of Bohr's atomic model
      2.4.7   Hydrogen Spectrum
   2.5   Planck's QuantumTheory_
   2.7   Quantum Numbers andOrbitals
      1.   Principle QuantumNumber
      2.   Azimuthal QuantumNumber
      3.   Magnetic QuantumNumber
      4.   Spin QuantumNumber
      5.   Shapes of s, p and dOrbitals
      2.7.1   Shells and sub-shells or orbitals
   2.8   Electronic Configuration
      2.8.1   The relative energies of atomic orbital
      2.8.2   Rules

3. **THEORIESOFCOVALENTBONDINGANDSHAPESOFMOLECULES**
   Introduction
   3.1   Shapes ofmolecules
      3.1.1   VSEPR
   3.2   Theories of covalentbonding
      3.2.1   VBT andhybridization
      3.2.3   MOT

4. **GASES**
   Introduction
      4.2.3   Effect of change in P on V of gas (Boyle's law)
      4.2.4   Effect of change in T on V of gas (Charle's law)
      4.2.5   AbsoluteZero
   4.3   Avogadro'sLaw
   4.4   Ideal GasEquation (4.4.1- 4.4.3)
   4.5   Deviation From Ideal GasBehavior

12.2   Electrode, Electrode Potential and ElectrochemicalSeries
        12.2.2 Cell potential
        12.2.3 Standard Hydrogen electrode
        12.2.4 Determination of cell potential
        12.2.5 Electrochemical series
        12.2.6 Activity series of metal

Note: Topic related questions of self-check exercises and end exercise are included.
       Society, technology and science of all chapters is not included.

It is obvious that questions related to the topics not mentioned above are not included in exam. Paper will be curriculum based not book based.

REDUCED SYLLABUS
MATHEMATICS-XI

Chapter 1	Number Systems
Exercise 1.1	Q1; Q3(iii, v, vi); Q4; Q5; Q6
Exercise 1.2	Q3; Q4; Q5; Q6; Q7; Q8; Q9; Q10; Q11; Q12; Q13; Q14(i, ii); Q15(ii, iii); Q16
Exercise 1.3	Q1(ii, iv, viii); Q2(i, iii); Q3(ii); Q4; Q5; Q6; Q7
Page 03	Example 2
Page 20	Example 1(iii, iv)
Page 21	Theorem (i, iii, v, vi)
Page 24	Example 2

Chapter 2	Sets, Functions and Groups
Exercise 2.1	Q1(iv, vii, xi); Q2(iv, v, vi, xii); Q9(ii, iii, iv)
Exercise 2.2	Q1(i, iv); Q2(i); Q5(i, ii, iii); Q6
Exercise 2.3	Q3; Q5; Q8; Q9
Exercise 2.4	Q1; Q2; Q3; Q4; Q5
Exercise 2.5	Q1; Q2; Q3; Q4
Exercise 2.6	Q1; Q3; Q4
Exercise 2.7	Q2; Q4; Q7
Exercise 2.8	Q2; Q4; Q5; Q6; Q7; Q8; Q10
Page 77	Theorem
Page 78	Theorem

Chapter 3	Matrices and Determinants
Exercise 3.1	Q2; Q8; Q10; Q11; Q12; Q13; Q14
Exercise 3.2	Q3(i, ii); Q5(i); Q7; Q9(i)
Exercise 3.3	Q1(iv, v, vi); Q2; Q3; Q4; Q5; Q6; Q8; Q9; Q10; Q11; Q12(i, ii); Q13; Q14; Q15; Q16; Q17

Exercise 3.4	**Q1; Q2; Q3; Q4; Q5; Q6; Q7; Q8; Q9(i, ii); Q10(i, ii)**
Exercise 3.5	**Q1(i, ii); Q2(ii, iii); Q3; Q4(i, ii); Q5(i); Q6**
Chapter4	**Quadratic Equations**
Exercise 4.1	**Q5; Q8; Q12; Q19; Q20**
Exercise 4.2	**Q2; Q3; Q5; Q7; Q8; Q9; Q10; Q12; Q13; Q14; Q16; Q17; Q18; Q19; Q20; Q22**
Exercise 4.3	**Q2; Q3; Q5; Q6; Q7; Q8; Q9; Q10; Q12**
Exercise 4.4	**Q1; Q2(iii, v); Q3; Q4; Q6; Q7; Q8**
Exercise 4.5	**Q10; Q14; Q15; Q16**
Exercise 4.6	**Q3; Q5; Q7; Q8; Q9**
Exercise 4.7	**Q3; Q4(i, iii); Q7; Q8**
Exercise 4.8	**Q4; Q7; Q8; Q9; Q10**
Exercise 4.9	**Q3; Q6; Q7; Q8; Q9; Q10**
Exercise 4.10	**Q7; Q9; Q11; Q14; Q15; Q17; Q19**
Page 143	**Example 1**
Page 174	**Example 2**

Chapter 5	**Partial Fractions**
Exercise 5.1	**Q4; Q5; Q8; Q9; Q11**
Exercise 5.2	**Q2; Q6; Q9; Q10; Q12**
Exercise 5.3	**Q3; Q4; Q6; Q8; Q9; Q10**
Exercise 5.4	**Q1; Q2; Q3**

Chapter 6	**Sequences and Series**
Exercise 6.2	**Q2; Q3; Q5; Q7; Q8; Q9; Q11; Q12; Q13; Q14**
Exercise 6.3	**Q2; Q3; Q4; Q7; Q8**
Exercise 6.4	**Q1; Q2(i, iv, vi); Q3(ii); Q4(ii); Q5; Q7; Q8; Q9; Q12; Q13; Q14; Q15; Q16; Q17; Q18**

Exercise 6.5	Q2; Q3; Q5; Q6; Q9
Exercise 6.6	Q2; Q4; Q5; Q6; Q7(i, iii); Q8; Q10; Q11; Q12; Q13; Q14
Exercise 6.7	Q3; Q4; Q5; Q6; Q7; Q8
Exercise 6.8	Q2(i); Q3(ii); Q4; Q5(iii, v); Q6(i, iii, vi); Q7; Q9; Q10; Q11; Q12; Q14
Exercise 6.9	Q2; Q3; Q4
Exercise 6.10	Q2; Q3; Q5; Q6; Q9; Q11; Q13; Q14(i); Q15(ii); Q17; Q18
Page 201	Example 2, Example 3
Page 214	Example 6

Chapter 7	Permutation, Combination and Probability
Exercise 7.1	Q1(v, vii, ix, x)
Exercise 7.2	Q2; Q3; Q5; Q7; Q8; Q9; Q10; Q11; Q12; Q13; Q14
Exercise 7.3	Q3; Q5; Q6; Q7; Q8; Q9; Q10; Q12
Exercise 7.4	Q2; Q3; Q4; Q5; Q6; Q7; Q9; Q10
Exercise 7.5	Q5; Q7; Q10
Exercise 7.6	Q3
Exercise 7.7	Q1; Q3; Q4; Q5; Q6; Q7; Q8
Exercise 7.8	Q2; Q4; Q6; Q8; Q9; Q10

Chapter 8	Mathematical Induction
Exercise 8.1	Q2; Q5; Q7; Q9; Q13; Q15; Q18; Q20; Q21(ii, iv); Q23; Q24; Q27; Q28; Q34; Q36; Q37
Exercise 8.2	Q1(iii, iv, v, vi); Q3(ii, iii, iv); Q4(i, ii); Q5(i); Q6(ii, iii, iv); Q7; Q8; Q9(i, iii); Q10; Q11; Q12; Q13; Q14
Exercise 8.3	Q1(iii, v, vii, viii, x); Q3(ii, iv, v); Q4(ii, iii, iv, v, vi, vii); Q5(i); Q6; Q7; Q9(i, ii); Q10; Q11; Q12; Q13

Chapter 9	Fundamentals of Trigonometry
Exercise 9.1	Q4; Q5; Q7; Q9; Q10; Q12; Q13; Q15; Q16

Exercise 9.2	Q4; Q5; Q6; Q7; Q8
Exercise 9.3	Q4; Q5; Q6
Exercise 9.4	Q1; Q4; Q6; Q9; Q11; Q13; Q14; Q15; Q16; Q17; Q18; Q19; Q22; Q23; Q24

Chapter 10	Trigonometric Identities
Exercise 10.1	Q3(ii, iii); Q4; Q5
Exercise 10.2	Q3(i); Q4(iii, iv, v); Q5; Q6; Q7; Q8; Q9; Q10; Q11; Q12; Q13; Q14(i, iv, vi)
Exercise 10.3	Q1; Q5; Q6; Q7; Q9; Q10; Q12; Q13; Q14
Exercise 10.4	Q1(iii, vi, viii); Q2(iii, vi); Q3; Q4; Q5
Page 314	Article 10.1.2

Chapter 11	Trigonometric Functions and their Graphs
Exercise 11.1	Q1; Q4; Q9; Q11; Q12; Q15
Exercise 11.2	Q1(i, iii, vi); Q2
Page 339	Theorem 11.1
Page 340	Theorem 11.2

Chapter 12	Applications of Trigonometry
Exercise 12.3	Q9; Q10; Q11; Q13; Q15
Exercise 12.4	Q4; Q5
Exercise 12.5	Q3; Q4; Q5; Q8; Q9; Q11; Q12
Exercise 12.6	Q2; Q4; Q6; Q7; Q8; Q10
Exercise 12.7	Q1(ii); Q2(i); Q3(ii); Q4; Q5; Q6
Exercise 12.8	Q1(ii); Q2; Q3; Q4; Q5; Q6; Q7(ii); Q8; Q9; Q10; Q11; Q12
Page 377	Article 12.9

Chapter 13	Inverse Trigonometric functions

Exercise 13.1	Q1(iii, iv, vii, viii, ix); Q2(i, ii); Q3(i, iii, iv, v, viii)
Exercise 13.2	Q1; Q2; Q3; Q4; Q5; Q6; Q8; Q9; Q10; Q11; Q12; Q13; Q14; Q15; Q16; Q17; Q18; Q19

Chapter 14	**Solutions of Trigonometric Equations**
Exercise 14	**Q2; Q3; Q7; Q8; Q9; Q10; Q11; Q12; Q13; Q15; Q17; Q20**
Page 406	**Example 5**

REDUCED SYLLABUS
STATISTICS-XI

1. Introduction to Statistics: Collection (1/8) and Presentation of Data

Content	Scope
Nature and Importance of the Science of Statistics, Statistical Data, Population and sample. Brief revision of classification, tabulation and frequency distributions and their graphic representation	Define Statistics, give importance of measurements and different fields of science where measurements are useful. Explain different types of raw data in the fields of Science and Humanities, mainly in Medicine, in Agriculture, in Chemistry and Psychology. Explain the difference between a population and a sample, use sketches for showing population. Explain the importance of the sample. Demonstrate types of frequency distributions like symmetrical and non-symmetrical Cumulative and relative frequency distributions be explained by the use of sketches, Explain bar charts in different forms namely; divided bar charts, compound bar charts. Give an explanation for expressing data in rectangles an pie chart.

2. Measure of Location and Dispersion. (2/8)

Contents	Scope
Arithmetic mean, Geometric mean. Median, Mode, Range, Mean Deviation, Variance, Standard deviation, Difference between Absolute and Relative Measures of Dispersion. Skewness.	Explain arithmetic mean and variance of raw data from a frequency table, using mid points and also by change of origin and scale and their properties. To explain geometric mean, use ungrouped data as well as grouped data. Explain the method of direct calculation using root and also by using logarithms. To explain median and quantiles graphical method be explained as well. Mathematical proofs are not required.

3. Index Number (1/8)

Content	Scope
Introduction to Index numbers concept of price index numbers steps involved in the construction of price index numbers "Unweighted price index numbers (fixed based and chain based method)" weighted price index	Explain the index numbers as a useful statistical technique to assess the growth or fall of a certain item or economic series with respect to time or any other unit. Price index numbers by simple relative and link relative

Contents	Scope
numbers (Laspeyer'spaasche's and fisher's) consumer price index number.	methods be explained. Price index and its constructions must be given as examples. Fixed base and chain base methods for price indices be explained. The concept of weights be explained with reference to the arithmetic means in grouped data. Laspeyr's and Fisher's indices be explained by applying the standard results on a number of exercises. Consumer price index number be explained in general and with reference to Pakistan. Similarly whole-sale price index numbers to be also explained in a similar way.

4.   Simple Linear Regression and Correlation (1/8)

Contents	Scope
Bivariable data (non-random versus random variable) scatter diagram; estimation of regression parameters by least squares method, properties of the regression line; interpretation and applications of the regression line. Bivariate data, (random versus random variable) scatter diagram; point estimation of population correlation co-efficient; properties of the sample correlation co-efficient; interpretation and application.	Explain "Bivariate data", by giving sketches of scatter diagrams when one variable is specified and several values of response variable are assumed given at each non random variable similarly the sketches when both variable are random be also drawn and explained. Least square method be explained, normal equation be formed and estimation of regression parameters be given in terms of $\sum X$, $\sum Y$, $\sum XY$, $\sum Y^2$, and $\sum X^2$. Both the regression lines be explained by considering an example in which few values of the two variables are given the properties to be included are : i. Sum up squares of deviation from regression line is minimum. ii. The point of intersection of regression lines at (X, Y). Interpret by explaining the use of line of regression for forecasting and for estimating at "n" unknown values of independent variable. Explain the correlation co-efficient by explaining bivariate data in which both variables are random, the calculation of correlation co-efficient be explained by considering examples. The properties of correlations co-efficient be explained by considering: i. $r_{xy} = r_{yx}$ ii. r lying between – 1 and +1.

	iii. the value of correlation co-efficient does not change by the change of origin and scale and correlation can be obtained by geometric mean of the regression co-efficient.

5. Analysis of time series (1/8)

Contents	Scope
Introduction to the concept of time series; nature of fluctuations, signal and noise, components of a time series, measurement of secular, semi averages, moving averages and least squares (linear), advantages and limitations of these methods.	Explain the time series as a series in which one variable is time occurring at specified intervals (non random and the other variable is random). Examples be given from Economics, Public Administration, Business administration, Trade and Commerce. Fluctuation in the time series be explained in terms of trend which is given in terms of components of a time series and random fluctuations as noise. Linear and quadratic forms of time series be considered. The linear and quadratic time series be compared with trend obtained by free hand, semi averages and moving averages method.

REDUCED SYLLABUS
ECONOMICS-XI

I. **Nature and Scope of Economics**
    A.   Introduction
        1.   Wants and satisfaction
        2.   Goods and services
        3.   Utility and scarcity
        4.   Economic problems and its nature.
        5.   Definition by:
            a)   Adam Smith
            b)   Alfred Marshall
            c)   Lionel Robbins.

II. **Consumer's Behaviour and its Analysis**
    1.   Definition
    2.   Meaning
    3.   Rationale
    4.   The law of diminishing marginal utility with table and graph.
    5.   The law of equimarginal utility or law of substitution with formula and diagram.
    6.   Indifference curve.
    7.   Definitions and Characteristics (graphical presentation).

III. **Basic Tools of Statistics and Mathematics in Economics**
    i.)   Variables:
        Continuous discontinuous, independent dependent.
    ii.)   Liner equation with group.
    iii.)   Quadratic equation.
    iv.)   Simultaneous equations.

IV. **Demand**
    1.   Definition.
    2.   Law of demand.
    3.   Demand function and functional equation of demand.
    4.   Movement along the demand curve and shift in demand curve.
    5.   Price elasticity of demand (Arc & point) and methods of measurement.
    6.   Concepts of income elasticity and cross-elasticity of demand.
    7.   Factors influencing the elasticity of demand.
    8.   Practical uses of the concept of elasticity of demand.

V. **Supply**
    1.   Definitions stock and supply.
    2.   Law of supply.
    3.   Supply functional equation of supply.
    4.   Movement along the supply curve and shift in supply curve.
    5.   Elasticity of supply and its measurement.

6.   Factors influencing the elasticity of supply.
7.   Practical uses of the concepts.

VI.   Equilibrium
1.   Concept of equilibrium.
2.   Equilibrium of demand and supply.
3.   Equilibrium in price and equilibrium in output.
4.   The effects on equilibrium in price and output due to change in demand and supply.

IX.   Cost of Production
1.   Definition, classification, Fixed and variable.
2.   Total, average and marginal cost.
3.   Relationship between total average and marginal cost.

X.   Revenue Analysis
1.   Definition.
2.   Total marginal and average revenue under perfect competition and monopoly.
3.   Price and output determination and short and long run under perfect competition and monopoly.

XI.   Market
Meaning and significance of market.
1.   Perfect competition and monopoly.
2.   Short run and long run in perfect competition and monopoly.

REDUCED SYLLABUS
COMPUTER SCIENCE-XI

1. **OVERVIEW OF COMPUTER SYSTEM**
   1.1   Introduction to Computer
   1.2   Computer Software

2. **COMPUTER MEMORY**
   2.1   Introduction
   2.2   Main Memory

3. **CENTRAL PROCESSING UNIT**
   3.1   Inside CPU
   3.2   CPU Operations

5. **NETWORK COMMUNICATION AND PROTOCOLS**
   5.1   Introduction
   5.2   Data Communication standards
   5.3   TCP/IP

6. **WIRELESS COMMUNICATIONS**
   6.1   Introduction

7. **DATABASE FUNDAMENTALS**
   7.1   Introduction
   7.2   Basic Database Terminologies
   7.3   Planning a Database
   7.4   Data Modeling and Entity Relationship Diagram
   7.5   Relational Schema

8. **DATABASE DEVELOPMENT**
   8.1   Introduction

   (i)   Identify various relational database management systems (MS Access, Open Office Base, SQL Server)
   (ii)   Select any suitable DBMS as an application for creating and maintaining databases
   (iii) Explain the steps involved to create and save a database **(For Practical only)**
   (iv)   Explain the following in Database Environment:
   - o Database Toolbar
   - o Database Window
   - o Objects
     - ▪ Tables
     - ▪ Queries
     - ▪ Forms
     - ▪ Reports

8.2 Working with Tables
  (i)   Explain different ways of creating, saving and editing a table in database. **(For Practical only)**
  (ii)   Identify various available data types
  (iii) Create a primary key and foreign key in the tables. **(For Practical only)**
  (iv)   Create and edit relationship among tables. **(For Practical only)**
  (v)   Use navigation buttons to navigate through records in a table. **(For Practical only)**
  (vi)   Add, modify and delete records from a table. **(For Practical only)**
8.3 Working with Forms
  (i)   Explain different ways of crating, saving and editing a form in a database. **(For Practical only)**
  (ii)   Know different Form views
  (iii) Use the navigation buttons to navigate through records displayed in a Form. **(For Practical only)**
  (iv)   Add, modify and delete records. **(For Practical only)**
  (v)   Use Form controls. **(For Practical only)**
8.4 Working with queries and commands
  (i)   Explain different ways of creating, saving and editing a query in a database. **(For Practical only)**
  (ii)   Use following queries on database
         o SELECT (Where, Group by, Order by)
         o UPDATE
         o DELETE
         o INSERT
         o ALTER
8.5 Generating Reports
  (i)   use the report wizard to generate a report. **(For Practical only)**
  (ii)   se various report layouts/styles to produce reports
  (iii) Set the sort order of records that will appear on the report
  (iv)   Customized reports using queries (macros and arithmetic expressions) **(For Practical only)**
  (v)   Save, view and print the report. **(For Practical only)**

نصاب عربی گیارہویں جماعت کے لیے

١۔	مِنْ هَدْىِ الْقُرْآنِ الْكَرِيْم	اَلتَّوْحِيْد
٢۔	مِنْ هَدْىِ الْاَحَادِيْث	مَكَارِمُ الْاَخْلَاقِ
٣۔	فِكْرَةُ اِنْشَاءِ بَاكِسْتَان	بَاكِسْتَان
٥۔	فِى الْحَمْدِ لِلّٰهِ وَ الثَّنَاءِ عَلَيْهِ	اَلشِّعْر
٦۔	مِنْ هَدْىِ الْقُرْآنِ الْكَرِيْمِ	اَرْكَانُ الْاسْلام
٧۔	مِنَ الْاُسْوَةِ الْحَسَنَةِ	اَلسِّيَرَةُ النَّبَوِيَّةُ
٨۔	اَلْمُخْتَرَعَاتُ وَ الْمُكْتَشَفَاتُ الْحَدِيْثَةُ	اَلْحِوارُ
١٠۔	فِى الْمَدَائِح النَّبَوِيَّةِ	اَلشِّعْر
١٣۔	فِىْ مَكْتَبِ الْبَرِيْدِ	اَلْحِوارُ
١٤۔	اَلْآدَابُ	اَلْاَحَادِيْثُ النَّبَوِيَّةُ
١٦۔	اَلْخَلِيْفَةُ عُمَرُ بْنُ عَبْدِ الْعَزِيْزِ ؓ	اَلْمَشَاهِيْرُ
١٤۔	سُوْقُ أَنَارْ كلى	اَلْحِوارُ
١٨۔	قَضَاءُ الْأَمِيْن	اَلسِّيَرَةُ النَّبَوِيَّةُ
٢٢۔	مِنْ هَدْىِ الْقُرْآنِ الْكَرِيْمِ	فِى الْعَدْلِ وَ الْاحْسَانِ
٢٣۔	فُكَاهَاتٌ	اَلْحَكَايَاتُ وَ اللَّطَائِفُ
٢٤۔	فِى الْمَطَارِ	اَلْحِوارُ
٢٥۔	فِى الْحِكَمِ	اَلشِّعْر

نصاب فارسی گیارہویں جماعت کے لیے

REDUCED SYLLABUS
HEALTH AND PHYSICAL EDUCATION-XI

A.   **Physical Education**

1.   Physical Education and its importance

3.   Scope of activities:
    b.   Recreational
    d.   Rules and fundamental skill of games:
        i.   Boys: Volleyball
        ii.   Girls: Volleyball
    e.   Rules and fundamental skill of Athletics:
        i.   Boys: Short put: 4x100 meters relay
        ii.   Girls: Short put: 4x100 meters relay

B.   **Health Education**

1.   Definition of health, its relationship to physical education

2.   Human organism and how it works; functioning of the following systems (in detail):
    b.   Respiratory

3.   **First Aid:**
    a.   Treatment of athletics injuries like sprain, strain, pulled muscle, sore muscle and cramp
    b.   Fractures: Types and treatment

REDUCED SYLLABUS
PHILOSOPHY-XI
ELEMENTS OF PHILOSOPHY

1. **Introduction**
   a. What is Philosophy?
   b. What are the specific philosophical questions?
   c. Philosophical Approaches Criticism/Speculation

2. **Philosophy and Religion**
   a. Questions asked in Philosophy and Religion
   b. Their treatment
   c. Difference
   d. Allama Muhammad Iqbal's Educational Philosophy

3. **Philosophy and Science**
   a. What does science try to understand?
   b. How is it different from philosophy?
   c. What role does philosophy play in the growth of science?
      i. Interprets
      ii. Criticizes
      iii. Resolves conflicts
      iv. Justifies

4. **Knowledge**
   a. Definition of knowledge
   b. Sources of knowledge:
      i. Rationalism
      ii. Empiricism
      iii. Intuition and Revelation
      iv. Authority
         Introduction of basic philosophy of Imam Ghazali

5. **Metaphysics**
   a. Monism
   b. Dualism
   c. Pluralism
   d. School's of Idealism and Materialism

6. **Ethics**
   b. Ethical theories:
      i. Golden Mean
      ii. Utilitarianism
      iii. Good will
   c. Islamic theory of Ethics

REDUCED SYLLABUS
GEOGRAPHY-XI

I.   Understanding Geography
   1.   The Nature of Geography
   2.   Scope
   3.   Relationship with other Sciences

II.   The Earth Basic Concerns
   3.   The Earth's structure and composition

III.   Rocks
   1.   Formation classification and characteristics of rocks

IV.   Major Land Forms
   1.   Mountains Plateaus and plains

V.   Denudation
   1.   Weathering
   2.   Erosion

VII.   The Atmosphere
   1.   Introduction
   2.   Weather and Climate
   3.   Distribution of Atmosphere and Pressure
   4.   Winds
   5.   Precipitation

VIII.   Oceans and Seas
   1.   The Oceans and Seas
   3.   Ocean currents

REDUCED SYLLABUS
EDUCATION-XI

I. Education
1.   Importance and description of Education
2.   Role and Scope of Education as a subject/discipline Teachers, Students, Content areas, Milieu, Environment Culture
3.   Function of Education
4.   Model of Education, Formal, informal and non-formal
   - Conversation
   - Transmission
   - Reformation

II. Aims of Education
1.   Spiritual and Moral aims
2.   Intellectual aims
3.   Economic/ Vocational aims
4.   Citizenship (Socio-cultural) aims

III. Foundations of Education
1.   Introduction
2.   Islamic foundation of Education
3.   Importance of Education in Islam
4.   Sources of knowledge Philosophical foundations
5.   What is Philosophy, Philosophical foundation?
      Ideology, Religious, Customs, norms & students

IV. Human Development
1.   Explanation of the concepts of Human Development and Growth
2.   Difference between growth and development with examples
3.   Individual differences and teaching learning process

V. Learning
1.   Meaning and definitions
2.   Trail and error, imitation, insight (arising from intellectual rigour, learning by doing
3.   Law of readiness
4.   Law of Exercise
5.   Law of Effective
6.   Readiness, motivation, interest Attention, meaningful/relevant, attitude

VI. Society Community and Education
1.   Society and community (meaning and definition)
2.   Explain the Interrelationship of society and Education

VII.   Guidance and Counseling
1.   Guidance and counseling (meaning and definition)
2.   Needs & role of guidance and counseling in school
3.   Forms of guidance (Education and Career)
4.   Need and importance of counseling in schools

VIII. Curriculum, Syllabus and Textbook
1.   Meaning and definition of curriculum
2.   Differences between curriculum, syllabus and textbooks
3.   Components of curriculum
4.   Importance of Assessment and evaluation

REDUCED SYLLABUS
OUTLINES OF HOME ECONOMICS-XI

Home Management:

1. Values and goals & standards as related to management in the home; discussion of some values and goal as observed by Pakistani families; importance of developing goals as a means of realizing values

2. Resources: human and materials:
    b. Energy management-ways of avoiding fatigue
    c. Simplifications

3. a. Types of income
    b. Budgeting and its advantages
    c. Account keeping

5. Family Housing:
    a. First Aid elementary
    b. i.   Storage of summer and winter clotes and house hold equipment
        ii. Storage of food stuff (perishable and non-perishable foods)
        iii. Storage of books, shoes and extra furniture and other house hold equipment

Child Development:

6. Basic human needs, physical and psychological
    a. Principles of growth and development from birth to 5 years
    c. Understanding and guiding children: Characteristics of the toddler and the pre-school age child (development tasks), understanding and dealing with children problems such as fear, anger, jealousy, bed wetting and thumb sucking

REDUCED SYLLABUS
FINE ARTS HSSC-I
With General Outline

Chapters	Points to be discussed Generally	Contents to be focused on:
Prehistoric Art	• General introduction to Term "Prehistoric" initial phase of diverse cultures. • Concept of B.C.E and C.E. • Paleolithic age, Mesolithic age, Neolithic age • Share the world map with the students indicating the primitive art; cave paintings, sculpture and structures. Give special reference of Potohar and Baluchistan in Pakistan.	✓ **Hall of Bulls** (painting) ✓ **Venus of Willendorf** (sculpture) ✓ **Stone Henge** (Architecture) *(discuss in detail time line, Area, tools used,* *material and technique of above mentioned)*
Egyptian civilization	• Introduction to Egyptian Civilization • Timeline, Geographical conditions, economic conditions, social set up, religious beliefs • Burial system (Mastaba and Pyramids) • Hieroglyphs and murals in tombs • Book of death with reference to the religious and artistic practices, a brief introduction.	✓ **Great Pyramid of Khufu** ✓ **Rameses II** (seated sculpture of Rameses at temple of Abu Simbel) ✓ **Narmer palette** 3000 B.C. ✓ **Fowling scene from the tomb of Nebamun**, Thebes, Egypt *(discuss the time line, area, plan, influences, symbolism, material and technique* *with special reference to the decorative aspect of the above mentioned)*

Indus Valley Art 4000-1800 B.C. Mohenjo-Daro & Harappa	• Mehrgarh, the pre-Indus period
	• Introduction to Indus valley civilization.
	 Important cities; Mohenjo-Daro and Harappa
	• Timeline, Geographical conditions, economic conditions, social set up, religious beliefs,
	• Trade links with Mesopotamia and Egypt
	• Exploring, establishing and identifying the relationship of the Indus art and present
		✓ **Great Bath**
		✓ **Seals**
		   ➢ Unicorn seal
		   ➢ Bull seal
		   ➢ Yogi seal
		✓ **King Priest**
		✓ **Dancing Girl**
		(discuss in detail time line, area, plan, influences, symbolism, material and technique
		and decorative aspects of the above mentioned)

	practices.	

Buddhist Art	• Introduction to Mauryan Empire 321-233 B.C.
	• Difference in treatment of Buddha's image in Hinayana and Mahayana sects
	• Significance of Ajanta Caves
	• Comprehension of the symbolism of Bodhisattva, Buddha, Mudras, Stupa and Ashokan Pillars
		✓ **The great stupa of Sanchi** 3rd Century B.C.E
		✓ **Takht-e- Bahi Monastery**Gandhara and Kushan schools 1st -3rd century A.D.
		✓ **Ajanta Caves**
		  ➢ Buddha with Blue Lotus
		  ➢ Composition with White elephant
		(discuss in detail time line, Area, plan, influences, symbolism, subject matter, materials, techniques, and decorative aspects of the above mentioned)

CLASSICAL ART		
Greek Civilization	• Introduction to Greek civilization • General outline of architectural achievements of Greeks • Knowledge of the standardized proportions established in Greek period in art and architecture • Timeline, Geographical conditions, economic conditions, social set up, religious beliefs	✓ **Disco bolos by Myron** (Roman copy) • **Parthenon** (also introduce Greek orders) • **Theater (Epidaurus, Greece)** *(discuss in detail time line, Area, plan, influences, symbolism, subject matter, materials, techniques and decorative aspects of the above mentioned)*
Roman Civilization	• Introduction to Roman civilization • Architectural achievements of Romans. • Timeline, Geographical condition, geological condition, social set up, religious beliefs	✓ **Portrait of Augustus as general** from Primaporta, Italy; early 1st century of a bronze original of 20 BCE, marble, Rome. ✓ **Colosseum, Rome**, Italy, 70-80 BCE (also introduce roman order of architecture) *(discuss in detail time line, Area, plan, influences, symbolism, subject matter, materials, techniques and decorative aspects of the above mentioned)*

FINE ARTS I
STUDIO WORK:

Details of Portfolio (End of Year's work)   Max Marks: 50
2D FINE ARTS

Drawing / Painting
- Still Life   6
- Landscape   4
- Nature Study   3

Technique: as Per requirement
Medium: paper, lead and Colour pencil, Markers, Pen and Ink, water colours, Poster Colours, Gouache

  Time line

Colour Wheel (12 divisions)   **1**
Gradation Chart   **1**
Art of Lettering (Calligraphy)
- English   1 in any style
- Urdu   1 in any Style

Technique: Exploring the Nib
Medium: Pen and Ink

Letter Head and Logo/ monogram
- Letter Head   1
- Logo   1

Technique: as Per requirement
Medium: As per choice

Repeat Pattern
- Repeat patterns   12

Technique: as Per requirement
Medium: Poster Colour, Gouache

Surface Embellishment
- Surface Embellishment   2
  (on any surface e.g. Pots, Book jackets etc.)

Technique: as Per requirement
Medium: paper, lead and Colour pencil, Markers, Pen and Ink, collage

Computer Arts
- Computer Arts* (Posters, Cards, Illustrations)   2 (Size A4, Hard copy)
  *Clipart and other soft wares for compositional awareness

Technique: Computer Arts

Medium: Computer

Photography
(Images collected for the compositional awareness and study of various light modes)
Technique: Any available camera 2 (minimum size: postcard)

3D APPLIED ARTS
   Paper Sculpture
   - Origami   1
   - Papier Mache   1

   Technique: Constructive/ Additive; paper Folding, Paper moulding
   Material: Paper
   The sculptures should not be smaller than 6 square inches

   Note:

- It is desired that student selects the best work for the portfolio and exhibit in presentable manner.
- The works be duly signed, dated and stamped by the Art teacher.
- The works reflect the knowledge and understanding of elements of Visual Art and principles of design.
- **Plagiarism should be vigilantly checked by the Art teacher.** No copied work shall be accepted as part of Portfolio.

REVISED SYLLABUS
PSYCHOLOGY-XI

I. Introduction to Psychology
1. Introduction Meaning and Definition of psychology as science of Behavior and mental processes
2. Goals of psychology
3. Clinical psychology
5. Educational Psychology
6. Environmental psychology
8. Business Psychology

II. Methods of Research
1. Meaning and significance of research
2. Types of Research:
    i. Observation Method
    ii. Experimental Method
    iv. Case – study Method. Advantages

III. Nervous System and Behaviour
1. Meaning & relationship with behaviour
2. Neuron
3. Structure and Function of main parts of Brain

IV. Sensation and Perception
1. Brief introduction of sensation
2. Anatomy of the Eye
3. Anatomy of Ear
    Gestalt laws of perceptual organization.
    1. Depth & Distance.
    2. Movement. Monocular cues for depth (only 3 cues Inter position, Linear perspective, Shadow) perception Binocular Cues for depth (only 2 cues) perception. Definition. Kinds of Illusion.

V. Learning and Remembering
1. Definition of learning
2. Basic Principles of learning
3. i. Conditioning   ii. Classical   iii. Operant
4. Definition of Memory
    i. Sensory, Memory   ii. Short-term Memory
    iii. Long-term Memory
5. Measuring Memory
    i. Recognitions Method
    ii. Recall Method
    iii. Saving Method
    iv. Method of Rearrangement

VI. **Motivational Behaviour**
1. Definition
2. How they direct our Behavior
3. Primary motives (unlearned/ Physiological)
4. Hunger, thirst, temperature, Sex, Maternal
11. Elements affecting Motivation

VII. **Personality**
1. Definition
    i. Introvert, Extrovert & Ambivert
    ii. Freudian theory
3. Objective types:
    i. Questionnaire, Interview
    ii. MMPI
    iii. Projective techniques
    vi. TAT, Rorschach Inkblot

VIII. **Emotional Behaviour**
1. Meaning and definition
3. James-Lange theory (Feelings are physical)
4. Cannon – bard theory (Feelings are cognitive)
5. Role of Learning and Environment in emotion

IX. **Higher Cognitive Process**
1. Meaning & definition of cognition
2. Intelligence, General or specific Abilities
4. Stanford-Binate intelligence Scale, WAIS, WISE Army Alpha and Beta Intelligence
6. Cognitive operations in problem solving
    i. Discussion   ii. Brain Storming
    iii. Cooperative Learning

REDUCED SYLLABUS
CIVICS-XI

I.   Civics – what is it?
1. Definition
2. Nature
3. Significance
4. Utility

II.   Civics – The Basic Concern
1. The harmonic relationship between the members of society e.g. child hold, socialization, gender, religion.
2. Individual as a member of state.
3. Family a basic social institution.
4. Nature & Significance of community
5. Society
6. Nation and Nationality & Muslim Ummah

III.   State
1. Definition   2. Elements
4. Distinction of state from
   Government
   Society
   Nation
5. Conceptual basis of state in Islam.
6. Welfare State and equity issues with reference to gender, religion, are & social classes.

IV.   Sovereignty
1. Definition
2. Salient features
3. Forms Manifestation of Sovereignty
4. Basic principles of Sovereignty in Islam.

V.   Government
1. Meeting   2. Democracy
3. Parliamentary   4. Presidential
6. Legislature   7. Executive
8. Judiciary   9. Definition
10. The role of Good Governance in Islamic Democratic Government

VI.   Law and Related Matters
1. Meetings Law   2. Sources
3. Kinds   4. Meaning
5. Sources   6. Objectives Meaning of Law

VII.   Citizen and Citizenship
    1.   Definition   2.   Qualities of good citizenship
    3.   How citizenship acquired and lost?   4.   Definition
    5.   Rights and responsibilities of a citizen in Islamic perspective

VIII.   Constitution
    1.   Definition of constitution
    2.   Kinds of constitutions
    3.   Characteristics of a good constitution

IX.   Political Dynamics
    1.   Meeting
    2.   Formulation
    3.   Agencies
    4.   Conditions for sounds public opinion

REDUCED SYLLABUS
SOCIOLOGY-XI

I.   Introduction of Sociology
1.   Definition
2.   Subject matter
5.   What Science is!
6.   Sociology as a Science
8.   Role of Sociologists in the society

II.   Social Action and Social Interaction
1.   Definition of Social Action
2.   Essentials of Social Action
3.   Importance of studying Social Action
4.   Definition of Social Interaction
5.   Essentials of Social interaction
6.   Importance of Studying Social Interaction
7.   Distinction between social action and social interaction

III.   Social Group and Social Processes
1.   Definition
2.   Significance
3.   Types as below:
    i.   Primary and Secondary Groups,
    ii.   Formal and Informal Groups,
4.   Definition and forms of social processes:
    -    Cooperation
    -    Competition,
    -    Conflict,
    -    Accommodation,
    -    Assimilation

IV.   Social Stratification
1.   Meaning
2.   Determinants
5.   Merits and demerits
6.   Meaning
7.   Class – economic distribution
9.   Horizontal and vertical Social Mobility

V.   Social Norms Status and Role
1.   Meaning
2.   Significance
3.   Folk Ways
4.   Mores
5.   Laws

8. Meaning of Status and Role
9. Types of Status – achieved and ascribed

VI. Values and Belief
   1. Definition of values and belief

VII. Society
   1. Definition
   2. Elements
   3. Significance
   4. Rural and Urban Society

VIII. Culture and Civilization
   1. Meaning of culture and civilization
   2. Significance of culture and civilization
   3. Uniformities and variabilities of culture

IX. Social Institution
   1. Meaning
   2. Significance
   3. Family
   4. Education
   5. Religion
   6. Polity
   7. Economy
   8. Recreation

REDUCED SYLLABUS
LIBRARY SCIENCE-XI

History of the Book and Libraries

1. Definition and history of Libraries Ancient time
2. Role of Modern libraries in:
   a. Education and research
   b. Science and Industry
3. Purpose and functions of various kinds of libraries
   a. Academic (School and College Libraries)
   b. National
   c. Public
   d. Special (govt. Industry and special subject libraries)
4. Art of book-binding:
   c. Chemicals used for the preservation of library materials
5. Documentation of library materials
   a. Books:
      i. Cataloguing
      ii. Indexing
      iii. Bibliography
   b. Non-Book Materials:
      i. Journals
      ii. Newspapers
      iii. Maps and charts
      iv. Microfilms, Microfish, Microcards etc
      v. Tapes, discs etc
6. Use of books and libraries and reader services:
   a. Formation of materials i.e. title paging, contents, foot notes, references, indexes and bibliography
   c. Compilation of Bibliography and indexing

REDUCED SYLLABUS
CIVICS
(For Non-Muslims)
(In lieu of Islamic Education)

The outline of course contains the following major themes and their contents:

I. Man and Society

    a. Sociability of man

    b. Survival and development

    c. Impact of social environment on man

    d. Process of socialization

    e. Nature of Associations, their kinds (Voluntary/Compulsory) and functions

    f. Concept of Family, Nation, Millat and State

    g. Interdependence of the Individual and Society

II. Individual and State

    a. Meaning of State and its elements (Population, Territory, Government and Sovereignty)

    b. Islamic concept of State

    c. Functions of State (Defence, Law and Order, Welfare etc)

    d. Organs of government Legislature, Executive and Judiciary

    e. Forms of Government

    f. Law, Liberty and Equality

IV. Citizenship

    d. Qualities of good citizenship

    e. Rights and Duties of citizen in a State

    f. Fundamental Human Rights

V. Rights and Duties of a Citizen in Pakistan

    a. Rights and Duties of citizen in Islamic State with special reference to Khutba-e-Hujjat-ul-Wida

    c. Rights and Duties of non-Muslims in Pakistan under the constitution

REDUCED SYLLABUS
PAKISTAN CULTURE-XI

I.   Culture
    A.   Meaning, elements and scope
    B.   Concept of Islamic Culture

II.   Pakistan: The land and the people
    A: The Land
        The Mountainous Zone: External Security and Cultural inflow; NorthernRanges and Southern Mountains
        Arid Zones: Pastoral and Nomadic Life: The Plateaus and the Deserts, the Coastline: Maritime Links
    B: The People
        Racial Mix-Regional Traits, The Tribal System, Religious Groups, Occupational Groups, Urban-Rural Communities

III.   The Making of Pakistan
    B.   The Arab Period: Foundation of Islamic Society
    D.   Socio-Political Decline: Socio-Economic Set-backs
    E.   The Beginning of Muslim Resurgence: Steps towards Socio-Economic Uplift, Struggle for Homeland, Sayyid Ahmad Khan, Muhammad Ali Jinnah (Quaid-i-Azam), The Birth of Pakistan

IV.   Pakistan Culture
    A.   Ideological Moorings (Islam): The Holy Quran and the Prophet Oneness of Allah- Tuahid, Prophethood-Risalat Knowledge-Ilm, Deeds-Amal, the Hereafter-Akhrat
    B.   Social Patterns: Tribal, Feudal, Rural and Urban
    C.   Education

V.   Emerging Trends
New Orientations, Islamization, Education, Literature, Socio-Economic   Trends

REDUCED SYLLABUS
PRINCIPLES OF ACCOUNTING

1. Definition, basic concepts, Double Entry System of Book? Deeping, its objectives and advantages

2. Accounting Cycle: Accounting equation Journal, Ledger and Trial Balance

3. Cash Book

4. Banking Transactions: Kinds of bank accounts and procedure of recording of banking transactions; cheques; cheque register; bank reconciliation statement, its objectives and preparation **(Exclude revised cash book and double column cash book)**

7. Rectification of Errors: Kinds of error-correction of errors after and before closing the books of accounts

8. Financial Statement: Trading and profit and loss account income statement and balance sheet-form and its preparation

9. Adjustments and Closing Process: Prepaid and outstanding expenses; Accrued and unearned income; provision for Bad Doubtful Debt; Provisions for Discount; Depreciation, interest on capital and drawing

LIST OF EQUIPMENT, LAB-REQUIREMENTS

Book Keeping machines, Overhead Projectors, Slide Projector, Scientific electric calculators, Amount perforator on Cheque, Bank Draft, Business film though T.V.

REDUCED SYLLABUS
PRINCIPLES OF ECONOMICS

MICRO ECONOMICS

What is Economics about?

a.   The nature, (Definitions) and Methods of Economic Analysis

1.   Demand and Supply:

    a.   Law of demand, Changes in demand, Elasticity of demand, Measurement of elasticity of demand (outlay method)

    b.   Supply vs Stock, Law of supply

    c.   Equilibrium between demand and supply

    d.   Effects of changes in demand and/or supply on market equilibrium

2.   Consumer Demand Theory:

Law of Diminishing Marginal utility (cardinal approach)

3.   The Cost and Revenue of a Firm:

Classification of cost: Fixed Cost, Variable Cost, Total Average Cost, Marginal Cost (Concepts and Graphical Representation)

Total Revenue, Marginal and Average Revenue (Concepts and Graphical Representation)

4.   Laws of Returns: (Law of Variable Proportions)

5.   Price and Output Determination:

Concept of Perfect Competition, Price and Output determination under-Perfect Competition

6.   Resource Pricing:
    b.   Factors of Production (brief introduction)
        (i)   Land and its Characteristics
        (ii)   Labour and its Characteristics
        (iii)   Capital and its Importance
        (iv)   Organization and its Forms (introduction)

MACRO ECONOMICS

1. **National Income**

   Measurement of National Income:

   a.   National Income at factor Price

   b.   National Income at Market Price

   c.   Expenditure approach to income measurement

   d.   Concept of National Income

      i.   GNP = Gross National Product

      ii.   GDP = Gross Domestic Product

      iii.   NNP = Net National Product

      iv.   NI = National Income

      v.   PI = Personal Income

      vi.   DPI = Disposable Personal Income

      vii.   PCI = Per-Capita Income

2. **Money**

   a.   Money (Definition)

   b.   Functions of money

   c.   Inflation and its effects

3. **Business Cycle**

   a.   Phases of Business Cycle

4. **International Trade**

   a.   Introduction to International Trade

   b.   Balance of Trade and Balance of Payment

5. **Public Finance**

   a.   Cannons of Taxation

   b.   Zakat and Ushr

REDUCED SYLLABUS
PRINCIPLES OF COMMERCE

1. **Introduction**

    Definition of Commerce, its importance and scope. Branches of commerce, Trade, Insurance, Finance, Marketing, Warehousing and Industry, Essentials of establishing a business house and qualities of a good businessman

2. **Types of Commercial Organizations**
    a. Sole Proprietorship:
        Definition, Features, merits and demerits
    b. Partnership:
        Formation Features, Partnership Agreement/Deed Advantages, Disadvantages and Dissolution
    c. Joint Stock Company/Corporation:
        Special Feature, Kinds, Formation; Memorandum of Association, Articles of Association, Certificate of Registration, Prospectus, Certificate of Commencement of Business, management: share holders, Directors and Managing Director, Winding up
    d. Cooperative Society:
        Features, kinds, advantages and disadvantages; Basic concepts of Musharqa, Mudarba

4. **Trade**

    Kinds:

    a. Home Trade:
        Whole sale, Retails, Middlemen
    b. Foreign Trade
        Import:
        Import procedure, documents used
        Export:
        Export procedure, documents used and role of Export Promotion Bureau

REDUCED SYLLABUS
BUSINESS MATHEMATICS

1. Business Arithmetic:
   a. Ratios and Proportion
   b. Percentage
   c. Discount
   d. Commission
   e. Profit and Loss

2. Interest
   a. Simple Interest
   b. Compound Interest

3. Equations
   a. Linear Equations
   b. Quadratic Equations (Factorization and quadratic formula)
   c. Simultaneous Equations

   ➢ **Equations reducible to quadratic equations are excluded.**

4. Matrices and Determinants

REDUCED SYLLABUS
ENGLISH COMPULSORY HSSC-II

No	Units & Sub-units Included	Sub-units Excluded
1.	**Vision and Mission**	
	1.1 The Farewell Sermon	1.3 The Blades of Grass (Poem)
	1.2 Jinnah's Vision of Pakistan	
	1.4 Parts of Speech	
	1.5 Nouns Phrases	
	1.6 Noun Clauses	
2.	**Hope and Aspiration**	
	2.1 I have a Dream!	2.2 Glory and Hope
	2.3 I Dream a World (Poem)	2.6 Pronoun-antecedent agreement
	2.4 Pronouns	Articles
	2.5 Relative Pronouns	
3.	**Duty and Responsibility**	
	3.2 Lingkuan Gorge	3.1 Lesson from the Battle of Uhud
	3.3 If (Poem)	3.4 Tenses
	3.5 Verbs/Modals	
	3.6 Transitive, Intransitive	
4.	**Courage and Determination**	
	4.1 Determination	4.2 The Man who Planted Trees
	4.3 It couldn't be done (Poem)	
	4.4 Adjectives	
	4.5 Adjective Phrases	
	4.6 Adjective Clauses	
5.	**Technology/Gender Inequality**	
	5.2 Gender inequality is detrimental to society	5.1 Technology and society of the future
	5.3 The school boys (Poem)	
	5.4 Adverbs, Phrases, Clauses	
	5.5 Prepositions	
	5.6 Prepositional Phrases	
6.	**Cultural Heritage/The Past and The Present**	
	6.1 Archaeological treasures of Pakistan	6.2 The Renaissance
	6.3 Once Upon A Time (Poem)	6.5 Narration
	6.4 Figures of Speech	6.6 Voice
7.	**Tales from Shakespeare**	
	7.1 The Merchant of Venice	7.2 King Lear
	7.4 Essay Writing	7.3 Paragraph Writing
	7.5 Intonations	

NOTE: The inclusion &exclusion of units encompass the relevant exercises also.

REDUCED SYLLABUS
ENGLISH ELECTIVE-XII

Section "A" Functional English

NOTE: There will be no change in the following fields:

1.   Any essay of relatively advance nature
2.   Precis writing and comprehension of an advance English passage

1. An essay of relatively advanced nature
2. Precis writing of fairly advanced English passage followed by comprehension   question

Section "B" Text

3.   Play: Merchant of Venice by William Shakespeare
                            The following areas have been excluded:
                            Act-II, Scene-II, IV, VI, VIII
                            Act-III, Scene-I, II
4.   Novel: Mayor of CasterBridge by Thomas Hardy
                            The following chapters have been excluded:
                            V, IX, XI, XVI, XVII, XX, XXIII, XXIV, XXVII, XXIX, XXXII

NOTE: There will be no questions on the above mentioned chapters. It is expected that a brief summary of these chapters will be furnished to the students to maintain flow and sequence of events and characterization.

5.   Grammar: (Synthesis/Idioms)

نصاب اردو لازمی
برائے جماعت بارہویں

حصہ نثر:

مصنف	عنوان	شمار	مصنف	عنوان	شمار
خواجہ حسن نظامی	فاقہ میں روزہ	3	شبلیؔ نعمانی	مسلمانوں کا قدیم طرزِ تعلیم	1
ڈاکٹر وزیرؔ آغا	چند روز ایک روڈ رولر کے ساتھ	6	مولانا صلاح الدین احمد	پھر وطنیت کی طرف	4
غلام عباس	کتبہ	8	سعادت حسن منٹو	منظور	7
فرحت اللہ بیگ	ایک وصیّت کی تعمیل	13	الطاف فاطمہ	کنڈکٹر	12
پطرس بخاری	مرید پور کا پیر	16	چراغ حسن حسرتؔ	علّامہ اقبال	14

حصہ نظم:

شاعر	عنوان	شمار	شاعر	عنوان	شمار
جوشؔ ملیح آبادی	مناظرِ سَحر	3	علامہ اقبالؔ	جوابِ شکوہ	1
مجید امجدؔ	نفیر عمل	6	ن۔ م۔ راشدؔ	ستارے	5
			منیرؔ نیازی	ہمیشہ دیر کر دیتا ہوں	7

حصہ غزل:

- 10- کب یاد میں تیرا ساتھ نہیں، کب ہاتھ میں تیرا ہاتھ نہیں   فیض احمد فیضؔ
- 11- کون کہتا ہے کہ موت آئی تو مر جاؤں گا   احمد ندیمؔ قاسمی
- 12- سفر منزلِ شب یاد نہیں   ناصرؔ کاظمی
- 14- لب کشا لوگ ہیں، سرکار کو کیا بولنا ہے   احمد فراز
- 16- نہ سہی کچھ مگر اتنا تو کیا کرتے تھے   شہزادؔ احمد

نوٹ: حذف شدہ عنوانات کے مصنفین، شعراء کا تعارف اور مشقی سوالات بھی شاملِ نصاب نہیں ہوں گے۔

قواعد:
1- معاون فعل، مصادر کا بطور امدادی فعل استعمال
2- رموز اوقاف (سکتہ، وقفہ، رابطہ، ختمہ، تفصیلیہ، سوالیہ، قوسین، واوین، فجائیہ، ندائیہ)
3- غیر حذف شدہ اسباق، منظومات اور غزلیات کے مشقی سوالات میں موجود قواعد بھی شاملِ نصاب ہوں گے۔

انشاء پردازی: 1- مضمون نویسی   2- آپ بیتی (بے جان چیز کی)

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نصاب اردو اختیاری

برائے جماعت بارہویں

حصہ نثر:	۱۔	رحمۃ للعالمینؐ	(قاضی محمد سلیمان سلمان منصورپوری)
	۲۔	مولانا حالی	(مولوی عبدالحق)
	۳۔	ایک وصیت کی تعمیل	(فرحت اللہ بیگ)
	۶۔	سقراط	(مہدی افادی)
	۸۔	الفاظ کی کہانی	(ڈاکٹر سید عبداللہ)
	۱۰۔	بے ترتیبی	(وزیر آغا)
	۱۱۔	مجھے قتل کرو	(فکر تونسوی)
	۱۲۔	کافی	(مشتاق احمد یوسفی)
	۱۴۔	مکاتیب اقبالؒ	(علامہ محمد اقبالؒ)
	۱۶۔	میاں محمد بخشؒ کا کلام	(ڈاکٹر انعام الحق۔مترجم)
	۱۷۔	رحمان باباؒ کا کلام	(رضا ہمدانی۔مترجم)

حصہ نظم:	۱۔	حمد	(مولانا ظفر علی خاں)
	۲۔	نعت	(محسن کاکوروی)
	۴۔	مثنوی	(دیا شنکر نسیم)

حصہ غزل:	۲۔	خواجہ میر درد	۳۔	میر تقی میر
	۴۔	غلام ہمدانی مصحفی	۵۔	خواجہ حیدر علی آتش
	۸۔	مرزا اسداللہ خاں غالب	۱۰۔	علامہ اقبالؒ
	۱۱۔	حسرت موہانی	۱۴۔	ناصر کاظمی

اصناف نظم و نثر: غزل، تشبیہ، استعارہ، کنایہ، مجاز مرسل (خاکہ نگاری، مزاح نگاری، سفرنامہ، مثنوی)

نوٹ: نصابی کتاب کے حوالے سے سوال دیا جائے گا۔

</div>

اسلامیات اختیاری بارہویں جماعت کے لیے

الف۔ القرآن الحکیم: سورۃ البقرہ گیارہ سے پندرہ رکوع تک ب۔ الحدیث:اکیس سے پینتیس احادیث تک

ج۔ اسلامی تہذیب و تمدن د۔ فقہ اسلامی کے مختلف مسالک(آئمہ کرام کے حالاتِ زندگی)

ضمیمہ پرچہ دو

الف۔ القرآن الحکیم (سورۃ البقرہ)

1- اعجاز قرآن 2- سورۃ البقرہ گیارہ سے پندرہ رکوع تک ترجمہ و تشریح

ب۔ الحدیث

1- کتب حدیث (صحاح ستہ) 2- اکیس سے پینتیس احادیث اربعین امام نودی فقط ترجمہ

ج۔ اسلامی تہذیب و تمدن: کتاب و سنت کی روشنی میں درج ذیل عنوانات کا مطالعہ:

1- فرد: درج ذیل اخلاق اسلامی کا مطالعہ:
1- تقویٰ 2- عدل 3- خدمتِ خلق

2- خاندان:1- عائلی زندگی 2- والدین اور اولاد کے حقوق و فرائض

3- اسلامی معاشرہ: 1- ریاست کے حقوق و فرائض 2- استاد و شاگرد کے حقوق و فرائض

4- عالم اسلام: 1- تبلیغ 2- جہاد

د۔ فقہ اسلامی کے مختلف مسالک (آئمہ کرام کے حالاتِ زندگی)

1- حضرت امام ابوحنیفہ 2- حضرت امام مالک

3- حضرت امام جعفر صادق 4- حضرت امام زید بن علی

REDUCED SYLLABUS
ISLAMIC HISTORY-XII

Option – I   Umayyad and Abbasids
Option – II   Umayyad and Muslims in Spain
                (The students will have to opt only one option)

I.   **Umayyad**
     1.   Hazrat Ameer Maawia
     2.   Abdul Malik bin Marwan
     3.   Waleed bin Abdul Malik
     4.   HazratUmer bin Abdul Aziz
     5.   Marwan-II and Abbasid Movement
     6.   Downfall of Umayyad and its Central Government Administration

II.   **Abbasids**
     1.   Abul Abbas Al-Saffah
     2.   Abu Jaffar Mansoor
     3.   Haroon ur Rasheed
     4.   Ma'amoonur Rasheed
     5.   MutawakilAlilahh
     6.   Crusades
     7.   Mongols
     8.   Downfall of Banu Abbas

III.   **Muslims in Spain**
     1.   Abdul Rehman Al-Dakhil
     2.   Hasham-I
     3.   Hakam-I
     4.   Abdul Rehman Al-Nasir
     5.   Hakam-II
     6.   Marabteen
     7.   Mawahideen
     8.   Last Muslim Government in Granada
     9.   Culture of Muslims in Spain

REDUCED SYLLABUS
HISTORY OF PAKISTAN-XII

I.   Estimation of the Historical Experiences between 1972 – 1979
1.   Simla Agreement
2.   Constitution of 1973 Salient Features
      i.   Islamic Provisions
3.   Rigging in 1977 elections

II.   Historical Occurrence between 1979 – 89 in Socio-Political Backgrounds
1.   Proclamation of Martial Law 1979 and dissolving PPP government
2.   Islamization process
3.   Constitutional Amendments
4.   Non-parties elections of 1985 and aftermath

III.   The Arena of History during 1989 – 2001
1.   Elected government her dissolution – general causes and effects
2.   End of Nawaz Sharif's last era 1999 – dramatic collapse
3.   The major plans of new government
4.   Devolution of power plan
5.   11 September 2001 incident

IV.   Pakistan's Foreign Affairs
1.   Changing pattern of Pakistan's foreign policy during the period 1972 – 2000
2.   September 11 episode and sudden diversion of foreign policy with reference to Afghanistan
3.   Indian State terrorism in Kashmir

REDUCED SYLLABUS
PHYSICS-XII

11.   ELECTROSTATICS
   11.4   Electric flux
   11.5   Gauss' Law and its Application
   11.6   Electric Potential
   11.7   Electric Potential Energy and Potential due to point charge
   11.8   Field and Potential Gradient
   11.9   Electron volt
   11.10 Capacitors
   11.11 Electric Polarization
   11.12 Energy stored in a capacitor
   11.13 Charging and discharging of a capacitor

12.   CURRENT ELECTRICITY
   12.10 Thermistor
   12.12 Internal Resistance of a supply
   12.13 Electric power
   12.14 Maximum power output
   12.15 Thermocouple
   12.16 Resistance Thermometers
   12.17 Kirchhoff's Law
   12.18 Wheatstone Bridge

13.   ELECTROMAGNETISM
   13.2   Force on a current carrying conductor
   13.3   Magnetic Flux
   13.4   Ampere's Law
   13.5   Magnetic field due to a current carrying Solenoid (Applications are excluded)
   13.6   Motion of a charged particle in a uniform magnetic field
   13.7   Torque on a current carrying loop / coil
   13.8   Galvanometer (lamp scale method and pivoted coil galvanometer are excluded
   13.9   Conversion of Galvanometer into Ammeter
   13.10 Conversion of Galvanometer into Voltmeter
   13.11 Avometer: Multimeter

14.   ELECTROMAGNETIC INDUCTION
   14.2   Faraday Law of Electromagnetic Induction
   14.3   Lenz's Law
   14.4   Induced EMF
   14.4.3.3   Eddy currents
   14.5   Generating Electricity
   14.6   AC Motor

NOTE: All MCQs, short questions and problems relevant to the abovementioned topics are included.

REDUCED LIST OF PRACTICALS
PHYSICS
FOR HSSC (2006 KPK)

1. Measure length and diameter of a solid cylinder and hence estimate its volume quoting proper number of significant figures using Vernier callipers.
2. Measure the diameters of a few ball bearings of different sizes using Screw Gauge and estimate their volumes. Mention the uncertainty in each result.
3. Verify the two conditions of equilibrium using a suspended metre rod.
4. Determine the moment of inertia of a fly wheel.
5. Verify that the time period of the simple pendulum is directly proportional to the square root of its length and hence find the value of 'g' from the graph.
6. Determine time constant by charging and discharging a capacitor through a resistor.
7. Determine resistance of wire by slide Wire Bridge.
8. Analyse the variation of resistance of thermistor with temperature.
9. Determine internal resistance of a cell using potentiometer.
11. Determine emf of a cell using potentiometer.
11. Investigate the relationship between current passing through a tungsten filament lamp and the potential applied across it.
12. Draw characteristics of semiconductor diode and calculate forward and reverse current resistances.

REDUCED SYLLABUS
BIOLOGY HSSC-II

NOTE:
1. Only topic based relevant MCQs, Short and Long Questions are included.
2. All information in side boxes is excluded.

14.   RESPIRATION
    14.1   Properties of Respiratory surfaces
    14.2   Respiratory System of Man
        14.1.1   Air Passage Way and Lungs
        14.1.2   Mechanism of Breathing
        14.1.4   Transport of Gases (Transport of Oxygen and Carbon dioxide)

15.   HOMEOSTASIS
    15.2   Excretion
        15.2.1   Relationship between Excretory Products and Habitat
    15.3   Excretory System of Man
        15.3.1   Structure and Function of Kidney
    15.4   Disorders of Urinary Tract
        15.4.1   Urinary Tract Infections
        15.4.2   Kidney Stones (Causes and Treatments)

16.   SUPPORT AND MOVEMENT
    16.1   Human Skeleton (Axial Skeleton, Appendicular Skeleton, Types of Joints)
    16.3   Muscles (Smooth Muscles, Cardiac Muscles and Skeletal Muscles)
        16.3.1   Ultra-structure of Skeletal Muscles
        16.3.3   Muscle Contraction - Sliding Filament Model

17.   NERVOUS COORDINATION
    17.1   Neurons
    17.2   Nerve Impulse
            (Velocities of nerve Impulse **excluded**)
    17.3   Synapse
    17.4   Basic Organization of human nervous system (CNS and PNS)
            (Sensory receptor and their working **excluded**)

18.   CHEMICAL COORDINATION
    18.1   Hormones- The chemical messengers
    18.2   Endocrine System of Man (Glands with location, secretions and imbalance)
        18.2.1   Pituitary gland and the Role of Hypothalamus
        18.2.2   Thyroid
        18.2.3   Parathyroid
        18.2.4   Pancreas
        18.2.5   Adrenal
        18.2.6   Gonads
        18.2.7   Other Endocrine Tissues / Cells
    18.3   Feedback Mechanism

20.   REPRODUCTION
    20.1   Reproductive System of Man
        20.1.1   Male Reproductive System and its Hormonal Regulation
        20.1.2   Female Reproductive System and its Hormonal Regulation
    20.2   Disorders of Reproductive System

21.   DEVELOPMENT AND AGING
   21.1   Embryonic Development (Cleavage, Gastrulation, Neurulation)
   21.3   Human Embryonic Development

22.   INHERITANCE
   22.4   Polygenic Inheritance and Epistasis
   22.6   Sex Determination
   22.7   Sex linkage

23.   CHROMOSOME AND DNA
   23.2   DNA as the Hereditary Material
   23.3   DNA Replication
           23.3.1   Meselson and Stahl Experiment
           23.3.2   Mechanism of DNA Replication
   23.4   Gene Expression
   23.6   Mutations

25.   MAN AND HIS ENVIRONMENT
   25.1 Biogeochemical cycle
   25.3 Ecological Succession

26.   BIOTECHNOLOGY
   26.1   Cloning of gene
   26.2   DNA Sequencing
   (26.2.4 Automatic DNA Sequencing **excluded)**
   26.5   Tissue Culture
   26.6   Transgenic Bacteria, Plants & Animals
   26.7   Biotechnology & Healthcare
   26.8   Scope & Importance of Biotechnology

REDUCED LIST OF PRACTICALS
BIOLOGY HSSC (2006 NBF)

1. Preparation and examination of the slides of animal and plant cells using differential staining
2. Performing Benedict's test for reducing sugars and confirmation of the presence of starch through Iodine test
3. Confirmation of the presence of proteins through Biuret test
4. Confirmation of the presence of lipids through Emulsion test
5. Extraction of the leaf pigments and their separation by paper chromatography
6. Study of Nostoc from fresh or preserved material
7. Observation and drawing of representative members of each group of protists
8. Observation and drawing labeled diagrams of the life cycle of black bread mold from fresh culture and prepared slides.
9. Identification of the vegetative and reproductive structures of *Funaria* by examining the fresh or preserved material
10. Identification of the vegetative and reproductive structures of a local fern and relate them with the concerned life cycle
11. Classifying the given invertebrates into phyla and given chordates into classes by using classification key
12. Demonstration of phototropism, geotropism and thigmotropism in plants
13. Differentiation of an artery and a vein by observing prepared slides
14. Recognizing phagocytes and lymphocytes while observing prepared slides
15. Identification of different parts of the respiratory and reproductive system of a dissected frog (dissection would be done by the teacher)
16. Comparison of the structure of skeletal, smooth and cardiac muscles with the help of prepared slides. Preparation of skeletal muscle slide.
17. Identification of the different stages in chick development through observation of prepared slides (48 hours and 72 hours).
18. Calculation of probability by using the dice to calculate how many times out of 100 throws can students get sixes
19. Data collection from the class to see how many individuals have AB blood group and construction of a pie chart and histogram for the collected data
20. Testing of blood group using Antisera and performing agglutination reaction for Rh factor

REDUCED SYLLABUS
CHEMISTRY-XII

13. s-ANDp-BLOCKELEMENTS

Introduction

13.2   Group1-Elements

    13.2.1 Atomic and PhysicalProperties

        13.2.1.1   Trends in AtomicRadius

        13.2.1.2   TrendsinFirstIonizationEnergy

        13.2.1.3   Trends inElectronegativity

        13.2.1.4   TrendsinMeltingandBoilingPoints

        13.2.1.5   Trends inDensity

    13.2.2 TrendsinReactivitywithWater

    13.2.3 Reactions withOxygen

            ReactionsofOxideswithWaterandDiluteAcids

    13.2.4 Reactions withChlorine

    13.2.5 EffectofHeatonNitrates,Carbonates.

    13.2.6 FlameTests:OriginofFlameColors

13.3   Group 2-Elements

    13.3.1 Atomic and PhysicalProperties

        1.   Trends in AtomicRadius

        2.   TrendsinFirstIonizationEnergy

        3.   Trends inElectronegativity

    13.3.2 TrendsinReactivitywithWater

    13.3.3 ReactionswithOxygenandNitrogen

        1.   Reactions of group II elements with air or oxygen

        2.   Reactions of group II elements with nitrogen

    13.3.4 TrendsinSolubilityoftheHydroxides,SulphateandCarbonates

    13.3.5 TrendsinThermalStabilityoftheNitratesandCarbonates

    13.3.6 HowBerylliumDiffersfromotherMembersofitsGroup?

13.4   Group 4–Elements

    13.4.1 PhysicalProperties:MeltingandBoilingPoints

    13.4.2 TheTrendfromNon-MetaltoMetal

    13.4.3 OxidationState

    13.4.4 Possible OxidationStates

        13.4.4.1   InertPairEffect and positive oxidation states

        13.4.4.2   InertPairEffectandnegative oxidation states

    13.4.5 ChloridesofCarbon,SiliconandLead

        13.4.5.1   Stability

        13.4.5.2   Reactions withWater

    13.4.6 Oxides

        13.4.6.1   StructureofCarbonDioxideandSiliconDioxide

        13.4.6.2   AcidBaseBehaviorofGroupIVOxides

13.5   Group7-Elements: Halogens

    13.5.1 Atomic and PhysicalProperties

        13.5.1.1   Trends in AtomicRadius

Note: Topic related Exercise questions and quick quiz are included. Society, science and technology of all chapters is not included.

It is obvious that questions related to the topics not mentioned above are not included in exam. Paper will be curriculum based not book based

REDUCED LIST OF PRACTICALS
CHEMISTRY – HSSC

S #	PRACTICAL	STATUS
4.	**States of Matter I: Gases**	
2.	Demonstrate that Gases spread by diffusion to Areas of lower Concentration	Minor
5.	**States of Matter II: Liquids**	
5.	Prove that the Loss of Thermal Energy When a Liquid Evaporate Will Lower the Temperature of the Liquid	Minor
6.	**States of Matter III: Solids**	
6.	Crystallize Benzoic Acid from water	Minor
7.	**Chemical Equilibrium**	
7.	Purify a given sample of Sodium Chloride by passing HCl Gas (application of common ion effect)	Minor
8.	**Acid, Bases and Salts**	
9.	Determine the Exact Molarity of the Given Solution of H_2SO_4 and the Volume of this Acid Required to Prepare 500 ml of 0.02 M Acid by Volumetric Method	Major
10.	Determine the Percentage of NaOH in the Given Solution by Volumetric Method.	Major
11.	The given solution contains 6gms of Na_2CO_3 dissolved per dm^3. Determine the Percentage Purity of the Sample Solution by Volumetric Method.	Major
12.	Determine the Value of X by Volumetric Method in the Given Sample of 6.3g of $(COOH)_2 \cdot XH_2O$ Dissolved per dm^3.	Major
12.	**Electrochemistry**	
15.	Standardize the Given Solution of $KMnO_4$ and Calculate the Volume of $KMnO_4$ Required for Preparing 1 dm^3 of 0.01M $KMnO_4$ Solution Volumetrically.	Major
16.	Determine the Amount of Iron in the Given Sample Volumetrically.	Major
13.	**s- and p- Block Elements**	
19.	Detect the following Cations: NH_4^+, Mg^{2+}, Al^{3+}, Ca^{2+}, Cr^{3+}, Mn^{2+}, Fe^{2+}, Fe^{3+}, Cu^{2+}, Zn^{2+}, Ba^{2+}, Pb^{2+} Detect the Following Anions: CO_3^{2-}, NO_3^-, NO_2^-, SO_4^{2-}, SO_3^{2-}, Cl^-, Br^-, I^-, CrO_4^{2-} Perform Tests for the Following Gases: NH_3, CO_2, H_2, O_2	Major
14.	**d-f- Block Elements**	
20.	Prepare Nickel Dimethyl Glyoxime.	Minor
18.	**Alcohols, Phenols and Ethers**	
22.	Prepare Iodoform.	Minor

REDUCED SYLLABUS
MATHEMATICS-XII

Chapter 1	Functions and Limits
Exercise 1.1	Q2(iii, iv); Q3(b); Q4(iii, iv, v, vii, viii); Q6; Q7(i, ii); Q8(iii); Q9(i, iv, v, vi)
Exercise 1.2	Q1(i, iii, iv); Q2; Q3(i, ii)
Exercise 1.3	Q1(ii, iv, v, vi); Q2(i, iv, vii, viii, ix); Q3; Q4(ii, iii, vi, vii, viii, ix, x, xi)
Exercise 1.4	Q1(ii, iii); Q2; Q3; Q4; Q5; Q6
Exercise 1.5	Q1(i, ii, iii); Q2(i, iii); Q3(i, ii); Q4
Page 3	Example 4
Page 4	Example 7
Page 19	Article 1.5.1
Page 20	Article 1.5.2
Page 23	Article 1.5.5; 1.5.6
Page 25	Article 1.5.8
Page 30	Examples 4, 5

Chapter 2	Differentiation
Exercise 2.1	Q1(i, iii, v, vi, viii, ix, xi, xii, xiv); Q2
Exercise 2.2	Q1
Exercise 2.3	Q2; Q3; Q5; Q6; Q7; Q8; Q10; Q11; Q13; Q14; Q15; Q16; Q17
Exercise 2.4	Q1(ii, iv, v); Q2(ii, iv, v, vi); Q3; Q4; Q5(iii, iv, v)
Exercise 2.5	Q1(iii, iv, v, vi, vii); Q2(i, ii); Q3; Q4(i); Q5(ii); Q6; Q7; Q8; Q10(iii, v, vi); Q11; Q12
Exercise 2.6	Q1(ii, iii, v, vi, vii, viii); Q2(i, iii, v, vi, ix, x, xii, xiii); Q3(i, iii, iv, v)
Exercise 2.7	Q1(i, ii); Q2(i, ii); Q3(ii, iii, v); Q4(ii, iii); Q5; Q6; Q7; Q8; Q9
Exercise 2.8	Q1(i, ii, iii, v); Q2; Q3

Exercise 2.9	Q1(i, iii, iv); Q2(i, iii, vi, vii, viii); Q3; Q4; Q5
Exercise 2.10	Q2; Q3; Q4; Q6; Q7; Q9; Q10; Q11
Page 45	Example 1
Page 46	Example 2
Page 48	Example 4
Page 94	Example 7
Page 112	Example 3

Chapter 3	Integration
Exercise 3.1	Q1; Q2(iii, iv); Q3(i, iii); Q4
Exercise 3.2	Q1(i, iii, iv, vi, viii, x, xi); Q2(i, ii, v, vii, ix, x, xi, xii, xiii)
Exercise 3.3	Q1; Q2; Q3; Q4; Q6; Q8; Q9; Q11; Q12; Q14; Q15; Q16; Q17; Q18; Q19; Q20; Q21
Exercise 3.4	Q1(i, iii, vii, xi, xiv, xv, xvi, xvii, xix, xx, xxi); Q2(i, iii, iv, vii, viii); Q3; Q4(ii, iii, v, vi); Q5(i, iv, v, vi, vii, viii, ix, x, xi)
Exercise 3.5	Q1; Q4; Q7; Q8; Q11; Q12; Q15; Q16; Q19; Q22; Q26; Q29
Exercise 3.6	Q2; Q3; Q5; Q6; Q9; Q10; Q11; Q12; Q13; Q15; Q17; Q18; Q19; Q20; Q21; Q24; Q25; Q27; Q28; Q30
Exercise 3.7	Q1; Q2; Q6; Q7; Q8; Q9; Q10; Q12; Q13
Exercise 3.8	Q1(i, v); Q6; Q8; Q11; Q12; Q13; Q14; Q16; Q17; Q19; Q21; Q22; Q23
Page 133	Example 5
Page 159	Example 4
Page 171	Example 5

Chapter4	Introduction to Analytic Geometry
Exercise 4.1	Q4; Q5; Q6; Q7; Q10; Q11; Q12; Q14; Q15; Q16; Q17; Q18
Exercise 4.2	Q1(iii); Q2(ii); Q3(ii, iv); Q4(i)

Exercise 4.3	Q3(d); Q4; Q5;Q6; Q7; Q10(c, f, g); Q11; Q12; Q13; Q14; Q15; Q20; Q21(a); Q22(c); Q23(c); Q24; Q25; Q26; Q27; Q29(b); Q30; Q31; Q32
Exercise 4.4	Q2; Q4; Q5; Q6; Q7; Q10(b, d); Q11(a); Q12; Q13; Q14
Exercise 4.5	Q1; Q4; Q6; Q7; Q9

Chapter 5	Linear Inequalities and Linear Programming
Exercise 5.1	Q1(ii, iv, v, vi); Q2(iii, iv, v); Q3(iv, v, vi); Q4(ii, iv, v, vi); Q5(i, iii, v, vi)
Exercise 5.2	Q1(ii, v, vi); Q2(i, ii, iv, v, vi)
Exercise 5.3	Q1; Q3; Q4; Q6; Q7

Chapter 6	Conic Section
Exercise 6.1	Q1(a, b); Q2(a, b); Q3(a, b); Q4; Q6; Q8; Q9
Exercise 6.2	Q1; Q3; Q4; Q7; Q8(i, ii); Q9
Exercise 6.3	Q1; Q2; Q3; Q4
Exercise 6.4	Q1(i, ii, iii, v, vi, ix, x); Q2(i, v, vii, viii, ix, x); Q3; Q6; Q8; Q9
Exercise6.5	Q1(i, ii, iii, iv, vi, viii, x); Q2(i, ii, iv, v); Q3; Q5; Q6; Q7; Q8
Exercise 6.6	Q1(i, iii, iv, v, vi, vii, viii); Q2(i, ii, iii, v, vi, vii, viii); Q3; Q6
Exercise 6.7	Q1; Q2; Q3; Q4; Q5; Q6; Q7
Exercise 6.8	Q1(ii, iii); Q2(i, ii); Q3(ii, iv); Q4(i, ii)
Exercise 6.9	Q2; Q3
Page 260	Example 4
Page 263	Example 8
Page 280	Example 6
Page 305	Example 6

Chapter 7	Vectors

Exercise 7.1	**Q4; Q5; Q7; Q8; Q11; Q12; Q14; Q15**
Exercise 7.2	**Q2(iii); Q4; Q5; Q6; Q7; Q8; Q10; Q11**
Exercise 7.3	**Q1(ii, iv); Q2(ii); Q3(ii); Q4; Q5; Q7; Q8; Q9; Q10; Q11; Q12**
Exercise 7.4	**Q1(iii, iv); Q2(i, iii); Q3(ii); Q4(iii); Q5(ii); Q6; Q7; Q8**
Exercise 7.5	**Q1(ii); Q2; Q3; Q6(ii); Q7; Q9; Q10; Q11; Q14; Q15**
Page 348	**Example 8**
Page 349	**Example 9**
Page 354	**Example 3**
Page 355	**Example 4**

REDUCED SYLLABUS
STATISTICS-XII

1. **Probability (1/8)**

Content	Scope
Brief revision of set theory, random experiment, sample space, events. Axiomatic and relative definition of probability. Conditional probability, multiplication theorem, (without proof) independence, application of addition theorem, counting rules, permutations and combinations and their real-world problems involving the computation of probabilities.	In explaining 'basic concepts', givehe difference between certainty and uncertainty by examples. Examples shall be selected from areas such as, business. Medicine, Agriculture, Astronomy, Psychology, etc. Also the applications of probability for prediction and forecasting be highlighted. Addition theorem of two events conditional probability, multiplication theorem be explained with the help of bivariate tables. Concept of independence be explained using classical logic through coins and dice as well as real events. In counting problems many examples be given for the calculation of number of combinations and permutations. The multiplication method of counting be explained through examples. While explaining applications of probability from real world problems, exercise be selected from different scientific fields such as Medicine, Meteorology, Engineering Agriculture, Space Sciences etc.

2. **Discrete and continuous probability distribution (2/8)**

Content	Scope
Concept of random variable, discrete univariate probability distributions, joint and marginal probability, expectation and variance of discrete random variables, discrete uniform distributions generation and application of random numbers, continuous univariate probability distributions through geometrical concepts.	Explain random variable by sample space, variable and probability. Explain the difference between mathematical variable and random variable: random variables can be discrete or continuous. Examples of random variables like number of patients in a clinic per day, number of accidents on a given road per weak, number of plants without followers per square yard in a given fields etc, be explained as real world examples of random variable. In discussing discrete variate: "Probability distribution expectation and variance", use frequency tables for head and tails in coins, number of defective items in lots of five items

	etc, number of accidents per week on a certain road. Discrete uniform distribution to be discussed through random numbers which should be generated or obtained from random number tables. Discrete uniform distribution would thus be obtained and mean variance would be obtained from there. While doing this random number table on one page or more than one pages may be used. "Continuous univariate probability distributions", would be those which can be sketched through linear functions such as $F(x) = x + a$ from the lower limit would be shown equating to one, and areas on smaller intervals would be shown as values of probability

3. Hypergeometric and Binominal Probability, Distributions (1/8)

Contents	Scope
Bernoulli trails, Binominal distribution, its mean, variance, skewness and applications.	Hypergeometric experiments to be explained through examples such as selecting a number of fish of particular type from a large pond, selecting a set of defective items from a production belt in a factory etc. Hypergeometric distribution to be explained using "M" balls in a box out of which "k" balls are white and (M-k) balls are black and "n" balls are drawn from the box, the probability expression would be explained. Special cases for specific values of "N", "k" and "n" to be obtained. The expression for the mean and the variance of hyper geometric distribution to be given without derivation but to be explained thoroughly, "Bernoulli trails to be explained using black and white balls in a box, head and tail in case of a coin, boy and girl in a family, defective and nondefective items in a given large lot, sick and healthy people in a town etc. The evens would be defined in terms of the result of a given number of trails such as (HTTHH) occurring in a five trails from five losses of coin. The number of heads, the number of balls of a particular colour in a selection of (say) 10 balls, etc be defined as the Binominal variable. The Binominal probability distribution to be explained by first

	explaining Bernoulli trails, the mean and variance be derived. In the exercises, problems must be selected from fields such as Medicine, Agriculture, Engineering, Geology, Pharmacy and Psychology etc.

4. Normal Distribution (1/8)

Content	Scope
Normal probability distribution and its properties, computation of probabilities (areas under the National Curve), applications in real life, kurtosis.	Normal Probability distribution to be explained by writing the mathematical function with its parameters. The sketches of the normal distribution to be explained by : i. Keeping parameter of mean as fixed and changing the standard deviation. ii. Keeping the parameter of standard deviation as fixed and changing the parameter of mean. The standard normal distribution be explained and the tables of areas under the standard normal distribution be explained. Exercise be given so that for given intervals areas are obtained with the use of normal tables and also intervals are obtained when probabilities are given. Exercise based on fields such as, Medicine, business, agriculture, Psychology, Economics etc., be solved in sufficient number.

5. Sampling and sampling distribution (1/8)

Content	Scope
Population and sample: advantages of sampling; sampling error and non-sampling error; probability and non-probability sampling sample random and stratified random sampling.	Population and sample, advantages of sampling" be explained by stating that populations are usually large and not generally possible to observe each and every member of it. This problem be explained as kind of difficult situation to be solved. The importance of random sample be explained, which gives accurate results for the parameters of the population and is a useful statistical procedure to arrive at almost accurate results sampling be also explained as a useful technique for prediction. "Sampling error", be explained as the amount of error that would occur while drawing the sample,. The measurement of sampling error

	be explained as a useful way of knowing the precision of the index, which is derived from the sample. "Non sampling error" be explained as those errors which cannot be eliminated. These occur in cases when there is a fault in the measuring scale or the observation kit. Examples of sampling be given from fields such as Agriculture, Medicine, Psychology, Economics etc.
Selection of all possible samples from finite population with and without re-placement, parameter and statistic, sampling distributions of mean and proportion, concept of Central Limit Theorem.	Explain the sampling distribution of the mean by first showing that sample mean is a random variable. In order to do this, selection of all possible samples from finite populations with and without replacement be explained. Explain the terms parameter and statistic as quantities related with the population and sample respectively. The sampling distribution of the variance be explained through examples based on a small set of observations. In the same way, the sampling distribution of proportion be explained also. Central limit theorem be explained to show the shape location and dispersion of the distribution of the sample mean when samples are large and when the distribution of the population is unknown or known to be non-normal.

6. Statistical inference (1/8)

Content	Scope
Concept of statistical Inference: Point estimation of the population mean, variance and proportion: unbasedness of mean and proportion intervals for the mean of a normal population (known and unknown standard deviation), confidence interval of proportion (large samples). Formulation of Alull and alternative hypotheses: type-I and type-II error, test of hypotheses for the mean of a normal population (known and unknown standard deviation).	Explained standard inference by showing that the mean and variance parameters in a population are mostly unknown. Explain that mostly, samples are only available. Discuss the techniques of inference as a set of statistical procedures by which unknown parameters of the given population are estimated. Parameters be explained as point estimators, confidence interval, hypothesis to be tested. Explain point estimation of the population mean, variance and proportion by considering a finite population of four of five observations and by writing all the samples of two or three or four observations. Mean and variance be explained

	with reference to such finite of mean and proportion explained with such finite populations as well.
For population mean and proportion (large samples)	Explain the confidence Interval for the mean of a normal distribution when standard deviation is known by writing the probability express for standard normal variable on an interval and then converting it into a confidence interval and of "Mean", When standard deviation is unknown, use of distribution and variable be explained. For population mean and proportion when the distribution is not given, large samples be considered so that central limit theorem could be applied. Explain the confidence Interval for the difference between means and proportions by considering large independent samples, s that central limit theorem is applicable. Explain Null hypothesis in its different forms i.e., simple and composite one sided and two sided. Explain the Test by considering sample mean and sample proportion. Type-I error and its probability X and Type-II error with its probability B be explained by using sketches of Normal Probability Curve. Calculation of X and B is not required. Test of hypothesis for the mean of the Normal Population be discussed by writing the steps (usually 8 or 9). Use of sketches be encouraged.

7. Association (1/8)

Contents	Scope
Concept of categorical or qualitative data Bivariate categorical (qualitative) data; association versus independence of two qualitative variables; (Nominal and ordinals scales), contingency table; chi-square test of independence. Measurement of association between two qualitative variables through the method of rank correlation co-efficient.	Explain the categorical data by considering categories in a unvariate case and in a bivariate case. It may further be explained using nominal and ordinal scales. It be explained that the most important statistical analysis in this type of data is known as association or independence. Real life examples be considered to explain various types of data. Explain the calculation of expected frequencies in a univariate and bivariate contingency table. Calculation of chi square to be explained by considering examples of un-variate and bivariate tables. Explain with examples the situation, where

	observations are ranked or ordered. Examples where two judges rank a group of competitors in a flower arrangement competition, the ranking of competitors in a fashion show or dish competition of food dishes or in competitions of paintings etc. The formula of rank correlation be given and applied in several examples.

REDUCED LIST OF PRACTICAL
STATISTICS

The following topics will be included in the syllabus of practicals:

1.	Probability, discrete and continuous probability distribution.

2.	Binomial and normal distribution.

3.	Statistical inference, association.

Note:

Two marks will be reserved for the Practical Note Book. The Note Book must contain a minimum of Nine practical according to the pattern and guidelines given below:

Three marks will be reserved for Viva voce. Viva will be conducted in the Examination hall with reference to the practical contained in the Note Book and /or the practicals contained in examination hall.

REDUCED SYLLABUS
ECONOMICS-XII

PART-A
MACRO ECONOMICS

I.   National Income
1.   G.N.P, N. N.P, GDP, National Income.
2.   Methods of computing national income.
   a.   Product method.
   b.   Income methods.
   c.   Expenditure methods.
   d.   Circular flow diagram.
   e.   Concept of equilibrium MPC, MPS,
        Y= C+S
        Y = C+I
   f.   Income where S=I

II.   Money
1.   Barter system and its difficulties.
3.   Definition of money.
4.   Functions of money.
5.   Kinds of money.
6.   Instruments of money (credit cards, ATM Traveler Cheques).
7.   Demand for and supply of money.
8.   Value of money.
9.   Quantity theory of money (fisher's equation).

III. Banks
   i.   Definition of Bank.
   ii.   Kinds and functions of Banks
   iii. Commercial Banks and their functions with particular reference to credit creation.
   iv.   Definition of interest.
   v.   Interest free Banking in Pakistan.

IV.   Public Finance
1.   Public vs Private finances.
2.   Public revenue and tax culture.
   i.   Tax and non-Tax revenue.
   ii.   Principals of taxation.
   iii. Kinds of taxation.
        a. Direct and indirect tax.
        b. Progressive and proportional.

PART-B
PAKISTAN ECONOMICS

VI.   Introduction to Pakistan Economy
   1.   Agriculture Sector.
   2.   Trade and Industrial Sector.

VII.   National Income of Pakistan
   1.   Its size and sectoral contribution.
   2.   Difficulties in measurement.
   3.   Causes of low per capita income.
   4.   Tax culture

VIII.   Economic Development and Planning
   1.   Concept of economic development.
   2.   Problems of under development.
   3.   Factors influencing development.
   4.   Quality of life (living standard) with reference to Pakistan.
   6.   Importance and problems in agricultural and industrial sectors of Pakistan and their solution.
   7.   Development of Industries.

X.   Banking in Pakistan
   a.   Commercial Banks and their functions.
   b.   Role of banking system in economic development.
   c.   State Bank of Pakistan its functions and importance.

XII.   Foreign Trade of Pakistan
   1.   Major exports of Pakistan.
   2.   Major Imports of Pakistan
   3.   Balance of payments position of Pakistan.

XIII.   Economic System of Islam
   9.   Comparison between capitalism, socialism and Islamic System.

REDUCED SYLLABUS
COMPUTER SCIENCE-XII

1.   OPERATING SYSTEM
1.1   Introduction to Operating System
1.2   Operating System Functions
1.3   Process Management

2.   SYSTEM DEVELOPMENT LIFE CYCLE
2.1   System Development Life Cycle

3.   OBJECT ORIENTED PROGRAMMING USING C++
3.1   Introduction
3.2   C++ Constants and Variables
3.3   Input/ Output Handling
3.4   Operators in C++

4.   CONTROL STRUCTURES
4.1   Decisions
4.2   Loops

5.   ARRAYS AND STRINGS
5.1   Introduction
5.2   Two dimensional Arrays
5.3   Strings

6.   FUNCTIONS
6.1   Functions

8.   OBJECTS AND CLASSES
8.1   Classes

REDUCED SYLLABUS
COMPUTER SCIENCE HSSC (2009 NBF)
LIST OF COMPOSITE PRACTICALS

COMPUTER HARDWARE
- Identification of Input devices, Output devices, Processing devices, Communication devices.
- Identification of various parts of the Motherboard (Ports, Slots, Buses, CPU, Power supply, etc.)
- Identification of various types of memories (RAM, ROM, Cache).
- Identification of various types of secondary storage devices (HD, CD, DVD, Flash memory, Memory card, Blue ray(BD) disk, SSD, etc.).
- Identification of network devices (Router, NIC, Cables, Switch/hub)

MICROSOFT ACCESS 2007
- Starting Microsoft Access
- Creating Tables, Assigning Primary key to the Table, Saving the Table
- Adding Records to a Table, Modifying Records in a Table, Deleting Records from a Table
- Modifying Records in a Table, Deleting Records from a Table
- Creating Relationships between tables
- Creating Queries
- Viewing/Running Query, Modifying Query, Adding a Calculating Column/Field to a Query
- Creating Queries using Query Design
- Creating and Running a Data Entry Form, Making Forms More Usable with Controls
- Creating Form with Sub-Form for Related Tables, Creating a Switchboard Form
- Generating Reports, Creating a Report using a Query

C++ PROGRAMMING LANGUAGE
Programs in C++ related to the following topics.
- Input/Output statements/functions
- Operators
- Decision control structure – if()
- Looping control structure – for(), while(), do-while()
- Arrays – One dimensional, two dimensional
- Strings
- Objects and Classes

Note: The scope/level of programming can be followed as given in the Textbook of Computer Science for XII (Published by NBF).

نِصَابِ عَرَبِي بارہویں جماعت کے لیے

REDUCED SYLLABUS
HEALTH AND PHYSICAL EDUCATION-XII

A.   Physical Education

1.   Values of games and sports

3.   Rules and fundamental skills:
   a.   Boys: Hockey
   b.   Girls: Badminton

4.   Rules and fundamental skills of Athletics:
   a.   Boys: Javelin Throw, 400 meters race
   b.   Girls: Javelin Throw, 400 meters race

B.   Health Education

Functions of the following systems in detail:

1.   Food and Nutrition:
   a.   Constituents of diet, what is balanced diet?

2.   Drugs and their effects:
   i.   Opium
   ii.   Nicotine
   iii.   Morphia
   iv.   Arsebue
   v.   Sleeping pills

4.   First Aid:
   a.   Fire & electric hazards and safe guard against them
   c.   Artificial respiration by the following methods:
      i.   Mouth to mouth: in case of children mouth to mouth and nose method
      ii.   Schafer's method

REDUCED LIST OF PRACTICALS
HEALTH AND PHYSICAL EDUCATION

1.   Educational Gymnastics: Exercise for legs, arms, dorsal, heaving

2.   Agilities:
        a.   Boys: Forward-roll, Backward-roll, dive-roll
        b.   Girls: Forward-roll, Backward-roll, dive-roll

3.   Fundamental skill of:
        a.   Boys: Volleyball
        b.   Girls: Volleyball

4.   Fundamental skills of athletics:
        a.   Boys: Shot put; Hos step & 4x100 meters relay
        b.   Girls: Shot put; Hos step & 4x100 meters relay

5.   Educational Gymnastics: Head and back exercise; Lateral exercises, Abdominal exercises, Balance exercise

7.   Fundamental skills in games:
        a.   Boys: Hockey
        b.   Girls: Badminton

8.   Fundamental skills in Athletics:
        a.   Boys: Javelin Throw & 400 meters race
        b.   Girls: Javelin Throw & 400 meters race

REDUCED SYLLABUS
PHILOSOPHY-XII

LOGIC AND SCIENTIFIC METHOD

1. Introduction
   a.   Definition and scope of logic
   b.   Propositions & Arguments
   c.   Premises/ Conclusion Indicators
   d.   Types of Arguments:
       i.   Inductive
       ii.   Deductive
   e.   Truth & Validity

2. Language
   b.   Three Important uses of Language:
       i.   Informative
       ii.   Expressive
       iii. Directive

4. Categorical Propositions
   a.   Four Categorical Propositions
   b.   Quantity, quality and distribution
   c.   Traditional squares of opposition
   d.   Three laws of thought

5. Categorical Syllogism and Simple Arguments
   a.   Categorical syllogism
       i.   Figure   ii. Mood   iii. Standard form
       iv. Rules   v.   Venn diagram
   b.   Simple argument forms and Truth Table

6. Inductive Logic
   a.   Forms of Inductive Generalization inductive Analogy
   b.   Factors on which their strength depends

REDUCED SYLLABUS
GEOGRAPHY-XII

I.   **The Geography of the Continents**

1.	Asia	2.	Europe	3.	Africa
4.	North America	5.	South America	7.	Australia

II.   **Economic Geography of the following Countries**

     1.   Pakistan

III.   **Population Geography**

     1.   Introduction
     2.   The distribution and density of Population
     3.   Population growth
     4.   Some Population characteristics
     5.   Migration

REDUCED LIST OF PRACTICALS
GEOGRAPHY

SECTION-I
1. **Introduction**
   - Maps, its essentials and types (with the help of Atlas in the lab)
   - Finding location on a globe, latitude and longitude
   - Longitude and time (calculation on the globe in lab)
   - Representation of direction
   - Methods of finding directions
2. **Scales and their construction**
   - Scale and its types
   - Methods of showing scale on a map and conversion
   - Construction of Plain Scale
   - Use of Scale: measurement of distance on the map between points

SECTION-II
4. **Map Projection**
   - Basic concept of map projection
   - Types of projection, characteristics and uses
   - Identification of projection on atlas maps
5. **Statistical Diagrams**
   - Line graph
   - Bar Graph
   - Pie-graph
6. **Distribution Maps**
   - Shading Method
   - Dot Method

Note: The students are required to use sketches, maps and diagrams to illustrate the Geography of an area. They are also required to do exercises of drawing outline map of Pakistan and its provinces and general map reading; however the Globe, physical and political maps of the World, Asia, South Asia and Pakistan should be available in the classrooms.

ESSENTIALS FOR PRACTICAL

The following instruments and materials are essential for doing practical. These should be provided to schools/students, whatever possible.

Good pair of compass fitted with both pencil and pen points. The pencil points should be kept thin and round.

Pencils-H and HB

Dividers, Erasers and ruler.

Drawing pen and Drawing Box

Ink and Graph Paper

Protector and Ruling Pen, Coloured Crayons or Paint Box.

REDUCED SYLLABUS
EDUCATION-XII

I. **Muslim Education in Sub-Continent**
  1. Historical back ground (Maktab, Madrassa Education)
  2. Contribution of Muslim thinkers towards education with special reference to:
     - Al-Ghazali   -   Ibni-Seena
  3. Concept of knowledge
  4. Aims & objective of education
  5. Curriculum
  6. Methods of teaching
  7. Student teacher relationship
  8. Salient feature of the Muslim system of Education in Indo-Pak:
     - Objectives   -   Curriculum and content
     - Administration   -   Teaching Methods
     - Evaluation

II. **British Education System in Sub-Continent**
  1. Introduction
  2. Beginning of East Indian Company
     - Charter act (1813)
       Woods dispatch (1854)
     - Sergeant Report (1944)

III. **Policies and Plans of Education in Pakistan**
  1. Introduction:
     - Implications of Ideology of Pakistan for Education
     - Salient feature of the following Education Policy
     - First Educational Conference 1947
     - Report of the commission on NE, 1959
     - National Education Policy 1992-2002
     - National Education Policy 1998-2010

IV. **Educational Problems in Pakistan**
  1. Educational issues and problems in Pakistan:
     - Population growth
     - Low Enrolment and heavy drop out
     - Low literacy
     - Indiscipline
     - Female education
     - Economic and social conditions
     - Physical condition of educational institutions
     - Quality of Education
     - Investment in Education

V.   Role of Various Organizations Contributing Towards Education

    2.   Curriculum and textual material development:
- i.   Federal Ministry of Education Curriculum Wing
- ii.   Provincial bureaus of curriculum
- iii.   Textbook Boards
- iv.   Private Sector organization

    3.   Staff Development
- i.   Colleges of Education
- ii.   Government Elementary College of Education
- iii.   Private Sector Organization

    4.   Examination:
- i.   Federal Board of Intermediate and Secondary Education (FBISE)
- ii.   Provincial Boards of Intermediate and Secondary Education (BISEs)
- iii.   Boards of Technical Education (BTE)
- iv.   Rural Development Education

REDUCED SYLLABUS
OUTLINES OF HOME ECONOMICS-XII

Clothing & Textiles:

2.   Study of fibres (Cotton, Wool, Silk, Rayon and Nylon)
      a.   Characteristics
      b.   Simple methods of identification
      c.   Care and storage

4.   Grooming:
      a.   Physical fitness
      b.   Personal
      c.   Ward robe planning
      d.   Use of accessories

Food & Nutrition:

1.   a.   Definition
      b.   Functions of food in the body

2.   Study of Food Nutrients: Carbohydrates, proteins, fats, minerals, vitamins and water
      a.   Classification
      b.   Sources
      c.   Functions
      d.   Effect of deficiency in diet
      e.   Common deficiency, diseases and symptoms

4.   Basic 4 Food Groups Selection: Preparation, Cooking and Storage
      a.   Meat
      b.   Cereals (Wheat, Corn & Rice)
      d.   Milk & Milk Products

5.   Menu Planning
simple rules: (Nutritional adequacy, pliability, colour, texture and economizing on money, fine and flavour)

REDUCED LIST OF PRACTICALS
OUTLINES OF HOME ECONOMICS
(Maintain a record of the Practical in a file)

SECTION-I
1. Time and motion study – preparing time plans
2. Emphasis on method of work simplification:
   Experiment of at least 4 activities from different aspects of life e.g.
   i. Laying of tables
   ii. Polishing, furniture, brass or silver
   iii. Dish-washing
   iv. Cleaning and dusting
3. Making budgets for different income levels

SECTION-II
7. Drafting of the following garments:
   Basic bodies block and adapt it to the design of your own choice
8. Stitching of Qameez
10. Clothing file
   a. Drafting of garments, samples of 6 basics stitches, use of illustration to depict basic colour schemes and accessories
   b. Basic seam finishes
11. Weighing and measuring techniques of food items
12. Prepare selected foods involving basic principles of cookery of various food groups:
   cooking practicals:
   a. Egg cookery i.e. boiled, fried, poached
   b. Milk cookery, sheer khurma, firni, custards (stirred, steam baked)
   c. Meat cookery, dry and moist cookery (Shami kabab, korma, chicken pulao/vegetable pulao)
   d. Vegetables salads:
      i. Tossed salad
      ii. Arranged salad with cooking
      iii. Fruit, salad (Gelatin Mould)
           Bhujias – Spinach Potatoes
   e. Cereals:
      i. Daal (dry and soupy)
      ii. Chapati, Paratha
           Preparation of at least 3 of the following:
   g. Plan a day's menu for your family

REDUCED SYLLABUS
FINE ARTS HSSC-II

ART HISTORY: 40 Marks

Chapters	General Discussion	Contents to be focused on:
Art of the Islamic World a) **Alhambra Palace** and **Cordoba Mosque** in Spain b) **Blue Mosque** in Turkey c) **Ibn-e-Tulun Mosque** Cairo Egypt	✓ Basic plan of mosque shows simplicity. ✓ Influence of Muslims in Spain with special reference to arabesque. ✓ Introduction of embellishments on mosques in different Muslim regions.	✓ How mosque architecture was developed, which influences it took from contemporary civilizations e.g. adoption of dome architecture. ✓ Gradual transition in the plan of mosque and amalgamation of local traditions of each area where Islam was introduced ✓ Unique qualities of religious and secular buildings of the Islamic world which marked culmination of Muslim architecture in general.
		Persian influence was first introduced to the **Indian** subcontinent by Muslim rulers of Turkic and Afghan origin, especially with the Delhi Sultanate from the 13th century, and in the 16th to 19th century by the Mughal **Empire**. ... **Persian** became the preferred language of the Muslim elite of north **India**.
Turko-Persian influence on art and culture of the Indian Subcontinent in the Sultanate period a) Qutub Minar, Delhi b) Shah Rukh-e-Alam Mausoleum Multan	✓ The composite **Turko-Persian tradition** refers to a distinctive culture that arose in the 9th and 10th centuries in Khorasan and Transoxiana (present-day Afghanistan, Iran, Uzbekistan, Turkmenistan, Tajikistan, minor parts of Kyrgyzstan and Kazakhstan) ✓ The Perso-Islamic tradition was a tradition where the Turk groups played an important role in its military and political success while the culture raised both by and under the influence of Muslims used Persian as its cultural	**Characteristics of Sultanate architecture** ✓ A mixture of Indian (Hindu) and Iranian (Muslim) Style (to construct their buildings on the pattern of Iran and Central Asia). ✓ Introduction of **trabeatedsystem**(post & lintel), Islamic brick architecture, doomed tombs and mausoleums ✓ **Arabesque** designs began to be used for decoration purposes. ✓ The use of **Islamic calligraphy** in the buildings served dual purposes i.e. religious as well as decorative.

	vehicle. ✓ **Regarding Turko-Persian** influences, impact of Mughals be discussed briefly.	
Mughal period(1526-1857)Architecture a) Lahore Fort, Lahore b) Taj Mahal, Agra c) The Badshahi Mosque, Lahore	✓ Time line ✓ Political and geographical background	✓ Synthesis of the Hindu and Islamic architectural modes and techniques. ✓ Introduction in India the Persian style of four-fold garden (Chahar Bagh) ✓ Characteristic features of Mughal architecture are the bulbous domes, the slender minarets with cupolas at the four corners, large halls, massive vaulted gateways and delicate ornamentation and extensive use of Red sandstone and later white marble
Miniature Paintings or the Art of book miniature paintings form: a) Akbar Nama: Mughal elephants in the battle 16th century. b) Jahangir Nama: Jahangir holding a globe. 17th century. c) Squirrels in a plane tree 1605-08 by Abu-ul-Hassan d) Badshahnama: Shahjahan receiving his three eldest sons and Asif khan during his accession ceremonies, Agra, Diwan-i-amm,1628	✓ Persian in origin ✓ Miniature painting. Miniature painting, also called (16th–17th century) limning, small, finely wrought portrait executed on vellum, prepared card, copper, or ivory. The name is derived from the minimum, or **red** lead, used by the medieval illuminators ✓ Difference between Persian and Mughal Paintings ✓ Differentiate Mughal and Rajput Paintings	✓ Synthesis of the Persian, local Hindu painters and European influence ✓ Methods and techniques of Mughal miniatures ✓ Mughal paintings are a particular style of South Asian painting, generally confined to miniatures either as book illustrations or as single works to be kept in albums, which emerged from Persian miniature paintings
	Colonial period: British Raj, British **colonial rule** in India, 1858 to 1947.	**Company style**

Art in Pakistan	Characteristics of works of all artist should be elaborately discussed	a) **Ustad Allah Baksh**: Bridge between pre partition art and post partition Pakistani art.
Old Masters of Pakistan		b) **Abdul Rehman Chughtai:**carried the old legacy of Indian sub-continent before partition and switched to the representation of Muslim ideological figures through poetry after partition.
a) Ustad Allah Baksh b) Abdul Rehman Chughtai c) Hajji Sharif d) Zain ul abideen e) Sadequain f) Shakir Ali g) Anna Molka Ahmed	All major works explained and any famous work can be discussed in detail, which marks the progress of artist making him prominent.	c) **Haji Sharif:**belonged to tradition miniaturist family, carried the old tradition in pre and post partition time. d) **Sadequain:** initiated the calligraphic letters in pen n ink. His ornamental calligraphic painting started a new dimension in Pakistani art.
Modern Artists of Pakistan h) Zahoor-ul-akhlaq i) Shahid sajjad j) Ismail Guljee k) Bashir Ahmed l) A.R Nagori m) MianSalahudin	Social and political conditions according to artists' works must be discussed e.g. Fame of calligraphy in late 60's under Islamization of state.	e) **Shakir Ali**: Father of modern art in Pakistan f) **Anna Molka Ahmed**: style of painting is expressionistic and she also painted social and political subjects. g) **Shahid Sajjad**: first sculptor with an impact h) **Ismail Guljee**: Contributed to Abstraction in Pakistan through his calligraphic paintings. i) **MianSalahudin**: Pakistan's first ceramic artist

Studio work: 60 marks
2D FINEARTS
DRAWING/ PAINTING
- Portrait   3
- Life drawings   6
- Nature Drawings 3
- Landscape 2
    o Technique: as per requirement
    o Medium:paper, lead and colour pencil, pen and ink, markers, and pestles, water colours, Acrylics and mix media

2D APPLIED ARTS

- Book cover and Illustrations   2
- Posters on diverse issues   6 (focus on the concept, typography and execution)
- Weaving (Knotting, off loom weave, minimum size: A4, Medium: Thread, wool, ribbon, fabric
- **DIGITAL TECHNOLOGY:** 2 (size A4, Hard copy)

Computer Arts (clipart and soft wares for compositions Awareness

- **PHOTOGRAPHY:** 2 (Minimum size: post card)
  (Data collection for composition Awareness with still photography using any available camera

Note:

- It is desired that student selects the best work for the portfolio and exhibit in presentable manner.
- The works be duly signed, dated and stamped by the Art teacher.
- The works reflect the knowledge and understanding of elements of Visual Art and principles of design.
- **Plagiarism should be vigilantly checked by the Art teacher**. For practice purposes copied work is allowed, yet no copied work shall be accepted as part of Portfolio.

REVISED SYLLABUS
PSYCHOLOGY-XII

I.   Developmental Psychology
1.   Definition of Growth, Development and Maturation
     Difference between above mentioned terms:
     a.   Piaget's theory of cognitive development (Brief Introduction)
     b.   Eriksson's psychosocial theory-of-development (Brief introduction)
     c.   Kahlberg's theory of moral development (Brief introduction)
     d.   Physical development (Brief Introduction).

II.   Psychology of Health
1.   Definition of Health and adjustment
2.   Different viewpoints of Mental Health
3.   Muslim point of views of Mental health, Imam Ghazali, Maulana Ashraf Ali Thanvi.
4.   Difference between Normal and Abnormal Behavior
5.   Sources of stress, conflict, life Events, and Pressure & environmental conditions
     a.   Anxiety Disorders
     b.   Schizophrenia
          i. Definition, General Symptoms. Kinds; Disorganized. Catatonic. Paranoid
     c.   Eating Disorders
          i.   Eating as a disorder, suggestions for improving Eating Habits
          ii   Right Eating
          iii. Exercising
          iv. Advices by the Doctors for Eating

III.   Social Psychology
1.   Meaning & definition
2.   Elements of Socialization
3.   Socialization and Peer Group Family influence on Socialization
     i.   Antisocial Behavior
     iii. Drug Addiction
     v.   Prejudice
     vi.   Sexual Harassment
4.   Definition, Attitude formation
5.   Attitude change, Measurement of Attitude

IV.   Guidance and Counseling
1.   Meaning and difference of Guidance and counseling
2.   Principles of Guidance
Psychoanalysis
     P.C.T. (Person Centered Techniques)

PSYCHOLOGY PRACTICALS
HSSC

1. Blind Spot

2. Muller-type-Illusion

3. Effect of Suggestion on Perception

6. Problem solving

7. Measurement of Memory by Recall Methods

9. Practical Journal & Viva Voce

10. STATISTICS

    i. Tabulation of Data

    ii. Graphic Presentation of Data

        a. Frequency Histogram

        b. Frequency Polygon

        c. Frequency Curve

    iii. Measures of Central Tendency of groups X, Un-Grouped Data

        a. Arithmetic Mean

        b. Median

        c. Mode

JOURNAL & VIVA VOCE

REDUCED SYLLABUS
CIVICS-XII

I.   **Pakistan Movement**
   1.   Meaning of Ideology
   2.   Significance of Ideology of Pakistan.
   3.   Ali Garh Movement
   4.   Back ground and formation of All India Muslim League-1906
   5.   Lucknow Pact 1916
   6.   Khilafat Movement 1919
   7.   Act of 1935
   8.   Pakistan Resolution 1940
   9.   3rd June Plan

II.   **Constitutional Development 1947-1973**
   1.   A brief historical outlook on constitutional development from 1947- 56.
   4.   Salient features and Islamic Provisions of 1973 constitution
         i.   Parliament.
         ii.   President, Prime Minister
         iv.   Supreme Court and High Courts
         v.   Islamic provisions

III. **Social Services in Pakistan**
   1.   Structure and Facilities
   2.   Problems.

IV.   **Social Order in Pakistan**
   1.   Meaning
   2.   Significance
   3.   Requisites of proper social order fulfilling the principle of liberty, justice, equity and authority in Islamic perspective.
   4.   Role of Islamic Values for maintaining social order and justice in welfare state.
   5.   Role of Police in Pakistan

V.   **National Integration and Cohesion**
   1.   Meanings
   2.   Importance
   3.   National Integration and cohesion in an Islamic State.
   4.   Problems in the way to national integration and cohesion in Pakistan.
   5.   Remedial measures keeping in view the ideological basis of Pakistan

REDUCED SYLLABUS
SOCIOLOGY-XI

I.   Social Control
1.   Meaning
2.   Significance
3.   Agencies of social control
4.   Social control in modern welfare society
5.   Good Governance and Social Control
6.   Role of Islamic Values in Social Control
7.   Deviant behaviour with reference to crime and violence in Pakistani society

II.   Environmental and Social Life
1.   Meaning of Environment   2.   Significance
3.   Impact of physical environment on Social Life

III.   Social Research
1.   Meaning   2.   Functions
3.   Significance
4.   Types – Pure and Applied dynamics of social research in Pakistan

IV.   Social Change
1.   Definition   2.   Processes
4.   Factors promoting social change in Pakistani society
6.   Introduction of information technology and social changes taking place in Pakistani society

V.   Culture and Society
1.   Cultural heritage and ideological foundations of Pakistan
2.   Uniformities and variabilities among the sub-cultures
3.   Islamic Cultural Values
4.   Nature of National Integration and Cohesion in Pakistan with special reference to debacle of East Pakistan
5.   Steps to strengthen national integration in relation to Islamic ideological foundations of Pakistan
6.   Definition
7.   Processes and agencies of socialization
9.   Definition of the national character
10.   Ways to strengthen the characteristics of national character

VI.   Social Problems
Meaning classification causes, consequences and remedies of following social problems in Pakistan
–   Over population
–   Social disorganization
–   Poverty
–   Illiteracy

VII.   Communities
1.   Definition of community
2.   Nature of rural community

REDUCED SYLLABUS
LIBRARY SCIENCE-XII

Introduction to Library Services

1.   Selection of Material:
    a.   Faculty recommendation
    b.   Provision of lists supplied by different publishers to the faculties
2.   Acquisition of Material:
    c.   Accessioning:
        i.   Invoice and payment processing
        ii.   Maintaining files, faculty and fund wise
3.   Classification: Definition of classification – the broad classification of knowledge in early times, its relation to book classification, the division of knowledge according to Dewy System
4.   Catalogue: Definition of cataloguing, importance of catalogue, forms of entry, various kinds and forms of cataloguing. (Emphasis to be laid on the standardisation of Pakistani names)
5.   Reference Documentation and Information Services:
Meaning and definition of reference service. Methods of locating information from reference sources. Types of reference material and their basic characteristics:
    a.   Dictionaries
    b.   Encyclopaedias
    c.   Year Books
    d.   Atlases
    e.   Gazettes
    f.   Directories
    g.   Bibliographies
    h.   Biographical sources
6.   Charging System: Definition, circulation record (card register), rules and regulations arrangement of records, over-due notices, reminders and recovery of fines

REDUCED LIST OF PRACTICALS
LIBRARY SCIENCE

SECTION-I (First Day)

1.   Compilation of bibliography on any assigned topic, (Minimum 25 centuries)

2.   Classification {50 books (25 Urdu 25 English)}

3.   Practical work in College Library (Six periods of 45 minutes per week)

SECTION-II (Second Day)

1.   Cataloguing {50 books (25 Urdu 25 English)}

2.   Indexing of periodicals and newspapers 25 each

3.   Searching of reference queries (25 items)

4.   Practical work in the college library (6 periods of 45 minutes per week)

REDUCED SYLLABUS
PAKISTAN CULTURE-XII

I. **Sufis and Sum Shrines**
   Data Ganj Bakhsh, Baba Farid Ganj-i-Shakar, Shah Abdul Latif Bhatai
II. **Archaeological Treasures**
   KotDiji, Harappa, Mahenjodaro,Taxila
III. **Architecture and Historical Monuments**
   Multan Tombs, Lahore Fort, Shalimar Garden Lahore, Tombs of the Kalhora and Talpur Rulers, Hyderabad, The Khyber Pass
IV. **Major Trends in Arts and Literature and Their Exponents**
   Poetry, Drama, Painting
V. **Festivals, Social Customs and Dresses**
   Festivals, Eid-ul-Fitr, Eid-ul-Azha, Shab-e-Baraat, Muharram, Eid-Milad-un-Nabi, Social Customs and Ceremonies, Birth of a child, Dress

REDUCED SYLLABUS
PAKISTAN STUDIES

I. **Genesis of Islamic Republic of Pakistan**
  I.   Ideology of Pakistan
       - Concept
       - Components:
       1.   Islam
       2.   Democracy
       3.   Social justice, equality and responsibility.
       4.   Basic Human Rights.

  II. Pakistan – The result of Muslim Struggle.
       2.   Foundation of Muslim League
       3.   Ali GarhTehrik
       4.   Pakistan Resolution
       10. 3rd June 1947 Plan
       11. Independence Act 1947
       12. Emergence of Pakistan

II. **Initial Problems of Islamic Republic of Pakistan**
  A.   Problems:
       1.   Introductory remarks.
       2.   Red Cliff Award – Its injustices
       3.   Administrative problems
       4.   Influx of Refugees
       5.   Division of Assets
       6.   Division of Armed Forces and Assets
       7.   Water/Canal Dispute
       8.   Accession of princely states (Junagarh, Manawdar, Kashmir, Hyderabad Daccan)
  B.   The vision of Quaid-i-Azam Muhammad Ali Jinnah about Pakistan
       1.   Settlement of Refugees
       2.   Advice to Govt officials for national service
       3.   Provincialism, parochialism.
       4.   Guiding principles for the economy of Pakistan.
       5.   Guiding principles of Foreign Policy
       6.   Advice to the students to concentrate on education.

III. **Geography of Islamic Republic of Pakistan**
  1.   Physiography of Pakistan
  3.   Imbalanced Economic Growth and Regional Disparities.
  5.   Geo-strategic position
  6.   Attraction for tourists
  7.   Gateway to land locked countries: Afghanistan, CentralAsianRepublics

IV.   Steps towards an Islamic Republic of Pakistan
1.   Significance and impact of objectives resolution 1949.
2.   Islamic provisions in the constitutional **only 1973 constitution**
3.   Steps towards Islamization since 1949.
8.   Salient features world Human Rights Declaration 1948
9.   KhutbaHujjat-ul-Vida, the comprehensive charter of Human Rights.

V.   Administrative Structure of Pakistan and Good Governance
1.   Federal Government-various Institutions and their functions.
4.   Islamic perspective of good governance
5.   Administration in the era of Hazrat Umar (RAU)

VI.   Culture of Islamic Republic of Pakistan
1.   Meeting and significance of culture.
3.   Culture Heritage of Pakistan main sites.
4.   Common Characteristics of Pakistan Culture. Be Pakistani, buy Pakistani by Pakistani.

VIII.   National Integration and Prosperity
1.   Meaning of national integration and cohesion
3.   Problems in the way to national cohesion and integration in Pakistan
4.   Remedial measures
       My, your and our role.

IX.   Economic Planning and Development in Islamic Republic of Pakistan
1.   Meaning and importance of Economic Planning and Development.
2.   Agricultural Development
3.   Industrial Development
4.   Trade and Commerce
7.   Information Technology

X.   Foreign Policy of Islamic Republic of Pakistan
1.   Definition of Foreign Policy
3.   Objectives of the Foreign Policy of Pakistan
5.   Foreign policy of Pakistan with China, India, Iran, USA, Afghanistan and Saudi Arabia

REDUCED SYLLABUS
PRINCIPLES OF ACCOUNTING

1. Accounting for Non-Profit Earning Concerns: Income and Expenditure Account; Receipts and Payments Accounts and Balance Sheet

2. Accounting for Incomplete Records: Calculation of profit and loss statement of affairs

3. Depreciation-Nature, methods straight line and diminishing balance

5. Accounting for Consignments: fully and partly sold goods excluding invoice price method, Account Sale Statement

7. Accounting for Joint Stock Companies: Formation-Kinds of companies; company documents; types of shares; issue of sharesat at par, at premium at discount; over-subscription for features and re-issue of share. Issue of debentures, Bond at par, at premium, and at discount-redemption of debentures

LIST OF EQUIPMENT, LAB-REQUIREMENTS

Book Keeping Machines, Overhead Projectors, Slide Projector, Scientific electric calculators, Amount perforator on Cheque, Bank Draft, Business film through T.V.

REDUCED SYLLABUS
COMMERCIAL GEOGRAPHY

1.   **World**

   Part-I: Definition of world commercial activities and their response to different environments:

          a.   Primary/Primitive activities
          b.   Fishing
          d.   Lumbering
          e.   Agricultural activities
          h.   Farming-Subsistence
          k.   Types and products
          l.   Iron and Steel, Textile
          m.   Population growth-its global distribution, trends and its effect on various commercial activities
          n.   Growth – World-wide
          o.   Distribution
          r.   Choices of different countries
          s.   Inter-relationship of choices and commercial activities
          t.   Impact of the latest technology on existing commercial activities and the resultant trends

   Part-II: World resources and their distribution

          a.   Agricultural resources with special emphasis on food resources and rate of consumption
               i.   Wheat, Rice, Tea
               ii.   Cotton and Rubber
               iii.   Commodity flow and consumption
          c.   Energy resources and their application
                ii.   Electricity- Thermal/Hydro-electric/nuclear
               iii.   Natural Oil and Gas

2.   **Pakistan**

      a.   Location and physical environments
          i.   Geographical location and physical features
          iii.   Irrigations
      b.   Resources and their exploitation
          i.   Agricultural and their exploitation: Sugar-cane, Cotton
          ii.   Power-Electricity, Nuclear, Solar Energy
      d.   Logistics for the transfer of various resources:
          i.   Roads

REDUCED SYLLABUS
COMPUTER STUDIES
FOR COMMERCE GROUP

I.   Introduction to Computer System
a.   Definition of Computer and usefulness in Commerce
b.   Types of Computer
    i.   Differentiation among Digital, Analog and Hybrid Computers
    ii.   Classification of Digital Computer, Micro Computers, Mini Computers, Mainframe, Elements of Data Processing
    iii.   Familiarization with terminology and brief description of various fields, within computer science i.e. Hardware, Software (System Software and Application Software) System analysis Programming etc.

II.   Components of Digital Computer System and their Functions:
Central Processing Unit:
i.   Control Unit
ii.   Arithmetic and Logic Unit
iii.   Main Memory
    a.   *Input/Output Devices*
    Functioning, advantages and disadvantages of various input/output devices i.e. Terminal printers, Card Readers, Diskette Readers etc.
    b.   *Secondary Storage Devices*
    Disk drives fixed (Winchester), removable, Floppy, Magnetic Tape drive etc, Usage and suitability of various secondary storage devices according to their speed and volume should be explained.

IV.   Elements of Data Processing
Problems solving and various stages involved
a.   Defining the Problem
b.   Analysing of the problem
c.   Alogrithm
d.   Flow-charting
e.   Coding (Programming) the problem
f.   Processing the Problem
g.   Testing and Debugging
h.   Final Output (Showing results of Problem)

VI.   Elements and Programming in Basic Language
a.   Assignment statements
b.   Control statements
c.   Input/Output statements
d.   Specification statements
e.   Usage of Basic Statements in developing programmes for simple problems

VII.   Major Applications
For Research Development in:
Commercial, accounting, banking, insurance, shipping, census, immigration, taxation, communications, examinations, inventory (stores) personal information system

REDUCED SYLLABUS
BANKING

1. **Definition and origin of banking**

2. **Kinds of Banks**
    a.   Central Bank
    b.   Commercial Bank
    c.   Industrial Bank – IDBP, NDFC
    d.   Agricultural Bank
    e.   Investment Bank – ICP

3. **Commercial Banks**
    i.   Scheduled and non-scheduled banks
    ii.   Functions, Importance and services performed by a modern commercial bank

4. **Kinds of Bank Account:**
    a.   Saving
    b.   Current
    c.   Fixed
    d.   PLS

5. **Negotiable Credit Instruments:**
    a.   Cheque: Definition, Characteristics, Parties Types, Crossing, Dishonour
    b.   Bill of Exchange: Definition, Characteristics, Parties, Types
    c.   Bank Draft: Definition, Kinds, Parties

7. **Central Bank**
    a.   Origin and growth
    b.   Functions of a Central Bank
    c.   Credit control measures – objectives
    d.   State Bank of Pakistan –its role in the national economy

REDUCED SYLLABUS
BUSINESS STATISTICS

1. **Nature of Statistics**
   What is statistics? Subject matter, fields of statistics and the types of questions it can answer, importance of statistics in different fields.

2. **Statistical Data**
   a.   Types of data – Primary and secondary

3. **Presentation of Data**
   a.   Classification-the bases of classification

4. **Averages of the First Order**
   Means, Mode, Median

5. **Index Number**