

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
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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	شبلی نعمانی	مسلمانوں کا قدیم طرزِ تعلیم	1
ڈاکٹر وزیر 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 وصیت کی تعمیل	13	الطاف فاطمہ	کنڈکٹر	12
پطرس بخاری	مرید پور کا پیر	16	چراغ حسن حسرت	علامہ اقبال	14

حصہ نظم:

شاعر	عنوان	شمار	شاعر	عنوان	شمار
جوش ملیح آبادی	مناظرِ سحر	3	علامہ اقبال	جوابِ شکوہ	1
مجید امجد	نفیرِ عمل	6	ن۔ م۔ راشد	ستارے	5
			منیر نیازی	ہمیشہ دیر کر دیتا ہوں	7

حصہ غزل:

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

نوٹ: 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- رموزِ 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 پر دازی: 1- مضمون نویسی 2- آپ بیتی (بے جان چیز کی)

نصاب اردو اختیاری برائے جماعت بارہویں

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

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

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

اصناف نظم و نثر:

غزل، تشبیہ، استعارہ، کنایہ، مجاز، مرسل (خاکہ نگاری، مزاح نگاری، سفر نامہ، مثنوی)

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

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
مسالک (ائمہ کرام کے حالات زندگی)

ضمیمہ پرچہ دو

- الف۔ القرآن الحکیم (سورۃ البقرہ)
1- اعجاز قرآن
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- 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 (ائمہ کرام کے حالات 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. Hazrat Umer 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. Mutawakil Alilahh
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

15. AC CIRCUITS

- 15.1 Alternating Voltage and Current
- 15.2 Sinusoidal Alternating Voltage and Current
- 15.3 AC Terminologies
- 15.4 Values of Alternating voltage and Current
- 15.5 RMS value of Sinusoidal Current
- 15.6 Phase of AC
- 15.7 AC through Resistance
- 15.8 AC through pure inductance
- 15.9 AC through Capacitance

16. PHYSICS OF SOLIDS

- 16.5 Energy Band Theory
- 16.6 Super Conductors

17. ELECTRONICS

- 17.5 Rectification
- 17.6 Transistor
- 17.7 Types of Configuration

18. DAWN OF MODERN PHYSICS

- 18.1 Reference Frames
- 18.2 Special Theory of Relativity
- 18.3 Consequences of Special Theory of Relativity
- 18.4 Black Body Radiation
- 18.5 Photoelectric Effect
- 18.6 Compton Effect
- 18.7 Pair Production
- 18.8 Pair Annihilation
- 18.9 Wave Nature of Particles (18.9.1 excluded)
- 18.11 Uncertainty Principle

19. ATOMIC SPECTRA

- 19.7.2 Production of X-Rays
- 19.8 Lasers

20. NUCLEAR PHYSICS

- 20.5 Mass Defect and Binding Energy
- 20.9 Interaction of Radiation with Matter
- 20.18 Basic Forces of Nature
- 20.19 Building Blocks of Matter

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 Group 1-Elements

13.2.1 Atomic and Physical Properties

13.2.1.1 Trends in Atomic Radius

13.2.1.2 Trends in First Ionization Energy

13.2.1.3 Trends in Electronegativity

13.2.1.4 Trends in Melting and Boiling Points

13.2.1.5 Trends in Density

13.2.2 Trends in Reactivity with Water

13.2.3 Reactions with Oxygen

Reactions of Oxides with Water and Dilute Acids

13.2.4 Reactions with Chlorine

13.2.5 Effect of Heat on Nitrates, Carbonates.

13.2.6 Flame Tests: Origin of Flame Colors

13.3 Group 2-Elements

13.3.1 Atomic and Physical Properties

1. Trends in Atomic Radius

2. Trends in First Ionization Energy

3. Trends in Electronegativity

13.3.2 Trends in Reactivity with Water

13.3.3 Reactions with Oxygen and Nitrogen

1. Reactions of group II elements with air or oxygen

2. Reactions of group II elements with nitrogen

13.3.4 Trends in Solubility of the Hydroxides, Sulphate and Carbonates

13.3.5 Trends in Thermal Stability of the Nitrates and Carbonates

13.3.6 How Beryllium Differs from other Members of its Group?

13.4 Group 4-Elements

13.4.1 Physical Properties: Melting and Boiling Points

13.4.2 The Trend from Non-Metal to Metal

13.4.3 Oxidation State

13.4.4 Possible Oxidation States

13.4.4.1 Inert Pair Effect and positive oxidation states

13.4.4.2 Inert Pair Effect and negative oxidation states

13.4.5 Chlorides of Carbon, Silicon and Lead

13.4.5.1 Stability

13.4.5.2 Reactions with Water

13.4.6 Oxides

13.4.6.1 Structure of Carbon Dioxide and Silicon Dioxide

13.4.6.2 Acid Base Behavior of Group IV Oxides

13.5 Group 7-Elements: Halogens

13.5.1 Atomic and Physical Properties

13.5.1.1 Trends in Atomic Radius

- 13.5.1.2 Trends in Electronegativity
- 13.5.1.3 Trends in Electron Affinity
- 13.5.1.4 Trends in Melting and Boiling Points
- 13.5.1.5 Bond Enthalpies
 - 13.5.1.5.1 Bond Enthalpies in Halogens
 - 13.5.1.5.2 Bond Enthalpies in Hydrogen Halides
- 13.5.2 Strength of Halogens as Oxidizing Agents: $F > Cl > Br > I$
- 13.5.3 The Acidity of Hydrogen Halides
- 13.5.4 Halide Ions as Reducing Agents and Trends in Reducing Strength Ability of Halide Ions

14. d AND f-BLOCK ELEMENTS: TRANSITION ELEMENTS

Introduction

- 14.1 General Features
 - 14.1.1 General Features of Transition Elements
 - 14.1.2 Electronic Structure
 - 14.1.3 Binding Energy
 - 14.1.4 Variable Oxidation States
 - 14.1.5 Catalytic Activity
 - 14.1.6 Magnetic Behavior
 - 14.1.7 Alloy Formation
- 14.2 Coordination Compounds
 - 14.2.1 Components of complex compounds
- 14.3 Chemistry of some important transition elements
 - 14.3.4 Iron
 - 14.3.5 Copper

15. ORGANIC COMPOUNDS

Introduction

- 15.2 Coal as a Source of Organic Compounds
 - 15.2.1 Destructive Distillation of Coal
- 15.3 Characteristics of Organic Compounds
- 15.6 Functional Groups and Homologous Series
- 15.7 Detection of Elements in Organic Compounds

16. HYDROCARBONS

- 16.1 Types of Hydrocarbons
- 16.2 Alkanes and Cycloalkanes
 - 16.2.1 Nomenclature
 - 16.2.2 Physical Properties
 - 16.2.5 Reactivity
- 16.5 Alkenes
 - 16.5.1 Nomenclature
 - 16.5.2 Relative Stability
 - 16.5.3 Structure
 - 16.5.4 Preparation of Alkenes

1. Dehydration of Alcohols
2. Dehydrohalogenation of Alkyl Halides
- 16.5.5 Reactivity
- 16.5.6 Electrophilic addition reactions of alkene
 1. Hydrogenation
 2. Hydrohalogenation
 3. Hydration
 4. Halogenation
 5. Halohydrate formation
 6. Epoxidation
 7. Ozonolysis
 8. Polymerization
- 16.6 Isomerism
- 16.7 Alkynes
 - 16.7.1 Nomenclature
 - 16.7.4 Physical Properties
 - 16.7.5 Preparation of Alkynes by Elimination Reactions
 - 16.7.6 Reactivity
 - 16.7.7 Acidity of Terminal Alkynes
 - 16.7.8 Addition Reactions of Alkynes
 1. Hydrogenation
 2. Hydrohalogenation
 3. Hydration
 4. Bromination
 5. Ozonolysis
- 16.8 Benzene and Substituted Benzenes
 - 16.8.1 Nomenclature
 - 16.8.2 Physical Properties
- 16.9 Structure of benzene
 - 16.9.2 Resonance
 - 16.9.3 Resonance Energy and Stabilization
 - 16.9.4 Reactivity and Reactions
 - Electrophilic Aromatic Substitution Reactions
 - Substituent Effects in benzene, Classification of substituent on benzene

17. ALKYL HALIDES AND AMINES

Introduction

- 17.1 Alkyl halides
 - 17.1.1 Nomenclature
 - 17.1.2 Physical Properties
 - 17.1.3 Structure
 - 17.1.4 Preparations of Alkyl Halides
 - 17.1.4.1 From Alcohol
 - 17.1.4.2 From Alkanes
 - 17.1.5 Reactivity
 - 17.1.6 Reactions of Alkyl halide
 - 17.1.6.1 Nucleophilic Substitution Reactions of alkyl halide
 - 17.1.6.2 Substrate, nucleophile and leaving group
 - 17.1.6.3 Carbocation and their stability
 - 17.1.6.4 SN1 Mechanism
 - 17.1.6.5 SN2 Mechanism

- 17.1.7 1, 2 Elimination Reactions
- 17.2 Organometallic Compounds (Grignard's Reagents)
 - 17.2.1 Preparation of Grignard's Reagents
 - 17.2.2 Reactivity
 - 17.2.3 Reactions of Grignard's Reagents
 - 17.2.3.1 with Aldehydes and Ketones
 - 17.2.3.2 with Esters
 - 17.2.3.3 with CO₂

18. ALCOHOLS, PHENOLS AND ETHERS

Introduction

Alcohols

- 18.1.1 Nomenclature
- 18.1.2 Physical Properties
- 18.1.3 Structure
- 18.1.4 Acidity
- 18.1.5 Preparations of Alcohols
 1. Hydration of Alkenes (review)
 2. Hydrolysis of Alkyl Halides (review)
 3. Reaction of RMgX with Aldehydes and Ketones (review)
 4. Reduction of Aldehydes and Ketones
 5. Reaction of RMgX with Esters (review)
 6. Reduction of Carboxylic Acids and Esters
- 18.1.6 Reactivity
- 18.1.7 Reactions of Alcohols
 - a. Reaction in which C-O bond is broken
 - b. Reaction in which O-H bond is broken
 - c. Oxidation of alcohols

18.2 Phenols

- 18.2.1 Nomenclature
- 18.2.2 Structure
- 18.2.3 Physical Properties
- 18.2.4 Comparison of acidity of phenol, alcohol and carboxylic acid

18.3 Ethers

- 18.3.1 Nomenclature
- 18.3.2 Preparation
 - Physical properties
 - Reactions of ether

19. ALDEHYDES AND KETONES

- 19.1 Nomenclature
- 19.2 Physical Properties
- 19.3 Preparation of Aldehydes and Ketones
- 19.4
 - 19.4.1 Ozonolysis of Alkenes (review)
 - 19.4.2 Hydration of Alkynes (review)
 - 19.4.3 Oxidation of Alcohols (review)

- 19.4.4 Friedel-Crafts Acylation of Aromatics (review)
- 19.5 Reactions of Aldehydes and Ketones
 - 19.5.1 Nucleophilic Addition Reactions
 - (i) base catalyzed HCN
 - (ii) Condensation reactions
 - (iii) Haloform Acid catalyzed (2, 4-DNPH)
- 19.6 19.6.4 Oxidation Reactions

20. CARBOXYLIC ACIDS AND FUNCTIONAL DERIVATIVES

Introduction

- 20.1 Nomenclature
- 20.2 Physical Properties
- 20.3 Structure
- 20.4 Acidity
- 20.5 Preparations of Carboxylic Acids
 - 20.5.1 Carbonation of Grignard's Reagent (review)
 - 20.5.2 Hydrolysis of Nitriles
 - 20.5.3 Oxidation of Primary Alcohols (review)
 - 20.5.4 Oxidation of Alkylbenzenes (review)
- 20.6 Reactivity
- 20.7 20.7.3 Reactions involving Carboxyl group (-COOH)
 - A. Reduction to Alcohols
 - B. Decarboxylation Reactions
- 20.7.4 Reactions of Carboxylic Acid Derivatives
 - A. Acyl Halides
 - B. Acid Anhydrides
 - C. Esters
 - D. Amides

21. BIOCHEMISTRY

Introduction

- 21.1 Carbohydrates
 - 21.1.1 Classification of carbohydrates (mono, di and poly carbohydrates explanation with small table)
 - 21.1.2 Functions
- 21.2 Proteins
 - 21.2.1 Classification
 - 21.2.2 Structure
 - 21.2.3 Properties
 - 21.2.4 Importance of Proteins
- 21.4 Lipids
 - 21.4.1 Classification
 - 21.4.2 Structure
 - 21.4.3 Properties of Lipids
- 21.6 Minerals of Biological Significance

21.6.1 Sources and Biological Significance of Iron, Calcium, Phosphorus and Zinc

22. Industrial Chemistry

Introduction

22.4 Pesticides

22.6 Synthetic Polymers (PVC and Nylon)

22.8 Adhesives

23. ENVIRONMENTAL CHEMISTRY

Introduction

23.1 Chemistry of the Troposphere

23.1.1 Smog (complete topic)

23.1.2 Acid Rain

23.1.3 Green house effect and Global Warming

23.1.4 Automobile

23.3 Water Pollution and Water Treatment

23.3.2 Only water waste treatment

23.4 Green Chemistry

24. ANALYTICAL CHEMISTRY

Introduction

24.2 Modern Methods of Analysis

Spectroscopy complete topic

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 ₂ SO 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 ₂ CO 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 . XH ₂ O 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

Chapter 4	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
Exercise 6.5	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
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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
<p>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.</p>	<p>In explaining 'basic concepts', give the 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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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

Content	Scope
<p>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.</p>	<p>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 week, number of plants without followers per square yard in a given field etc, be explained as real world examples of random variable.</p> <p>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</p>

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

Contents	Scope
Bernoulli trails, Binominal distribution, its mean, variance, skewness and applications.	<p>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</p>

	explaining Bernoulli trials, 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.
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4. Normal Distribution (1/8)

Content	Scope
Normal probability distribution and its properties, computation of probabilities (areas under the Normal 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

	<p>be explained as a useful way of knowing the precision of the index, which is derived from the sample.</p> <p>“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.</p>
<p>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.</p>	<p>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.</p> <p>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.</p>

6. Statistical inference (1/8)

Content	Scope
<p>Concept of statistical Inference: Point estimation of the population mean, variance and proportion: unbiasedness of mean and proportion intervals for the mean of a normal population (known and unknown standard deviation), confidence interval of proportion (large samples).</p> <p>Formulation of Null and alternative hypotheses: type-I and type-II error, test of hypotheses for the mean of a normal population (known and unknown standard deviation).</p>	<p>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 or five observations and by writing all the samples of two or three or four observations. Mean and variance be explained</p>

<p>For population mean and proportion (large samples)</p>	<p>with reference to such finite of mean and proportion explained with such finite populations as well.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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7. Association (1/8)

Contents	Scope
<p>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.</p>	<p>Explain the categorical data by considering categories in a univariate 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</p>

	<p>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.</p>
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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).

نصاب عربی بارہویں جماعت کے لیے

- ۱۔ السَّيِّدُ جَمَالُ الدِّينِ الأَفْغَانِيُّ المَشَاهِيرُ
- ۲۔ بَيْنَ النُّكْتِ العَرَبِيَّةِ وَ البَاكِسْتَانِيَّةِ الحَوَارِ
- ۳۔ الرِّسَائِلُ كِتَابُ أَبِي بَكْرٍ إِلَى خَالِدِ بْنِ الْوَلِيدِ
- ۵۔ فِي حُبِّ الْوَطَنِ الشِّعْرِ
- ۶۔ حُقُوقُ الْعِبَادِ الأَحَادِيثُ النَّبَوِيَّةُ
- ۷۔ بَاكِسْتَانُ الأَرْضُ الطَّاهِرَةُ بَاكِسْتَانُ
- ۹۔ مُحَمَّدٌ ﷺ كَمَا يَرَاهُ مُفَكِّرٌ وَ العَرَبُ المُنْصَفُونَ السِّيَرَةُ النَّبَوِيَّةُ
- ۱۰۔ فِي العَزْمِ وَ الهِمَّةِ الرَّفِيعَةِ الشِّعْرِ
- ۱۱۔ فِي المُسْتَشْفَى الحَوَارِ
- ۱۳۔ الدُّوَلُ العَرَبِيَّةُ العَالَمُ العَرَبِيُّ
- ۱۴۔ جَلَالَةُ المَلِكِ فَيُصَلِّ المُعْظَم المَشَاهِيرُ
- ۱۷۔ جَوَامِعُ الكَلِمِ الأَحَادِيثُ النَّبَوِيَّةُ
- ۱۸۔ خُطْبَةُ عُمَرَ بْنِ عَبْدِ العَزِيزِ الخُطْبِ
- ۲۰۔ فِي فَضْلِ الصِّدْقِ وَ العَمَلِ الجَادِّ الشِّعْرِ
- ۲۱۔ مِنْ هَدْيِ القُرْآنِ الكَرِيمِ الجِهَادِ
- ۲۲۔ عُرُوسُ الجِبَالِ - مَصِيفُ مَرَى الحَوَارِ
- ۲۴۔ فِي مَوْقِفِ السِّيَارَاتِ الحَوَارِ

نصاب فارسی بارہویں جماعت کے لیے

- ۱۔ حمد (نظم)
- ۲۔ نعت (نظم)
- ۳۔ رباعیات ابوسعید ابوالخیر (نظم)
- ۶۔ رُودکی سمرقندی
- (نظم) آی بخارا شاد باش!
- ۷۔ ابوالفضل بیہقی
امیر عادل سبکتگین و آہوی مادہ
- ۸۔ فردوسی طوسی
- (نظم) دانا و نادان
- ۱۰۔ فرودگاہ (مکالمہ)
- ۱۱۔ ناصر خسرو
از ماست کہ بر ماست!
- ۱۲۔ شیخ فرید الدین عطار
رابعہ عدویہ
- ۱۳۔ سلطان قطب الدین ایبک
- ۱۴۔ مولانا جلال الدین رومی
- (نظم) ۱۵۔ شعر مولانا: دوستی نادان
- ۱۶۔ شیخ سعدی شیرازی
گھائی گلستان سعدی
- ۱۹۔ علی بن حسین الواعظ
لطائف الطوائف
- (مکالمہ) ۲۰۔ آلودگی ہوا
- ۲۳۱۔ محمد حجازی
(افسانہ) مارگیر
- ۲۴۔ علامہ محمد اقبال
- (نظم) ۲۵۔ از خوابِ گران خیز!
- ۲۶۔ کشمیر و پاکستان
- (مکالمہ) ۲۸۔ در بیمارستان

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
 - Administration
 - Evaluation
 - Curriculum and content
 - Teaching Methods

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
 - 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	<ul style="list-style-type: none"> ✓ 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. 	<ul style="list-style-type: none"> ✓ 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.
		<p>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.</p>
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	<ul style="list-style-type: none"> ✓ The composite Turko-Persian tradition refers to a distinctive culture that arose in the 9th and 10th centuries in <u>Khorasan</u> and <u>Transoxiana</u> (present-day <u>Afghanistan</u>, <u>Iran</u>, <u>Uzbekistan</u>, <u>Turkmenistan</u>, <u>Tajikistan</u>, minor parts of <u>Kyrgyzstan</u> and <u>Kazakhstan</u>) ✓ 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 	<p>Characteristics of Sultanate architecture</p> <ul style="list-style-type: none"> ✓ A mixture of Indian (Hindu) and Iranian (Muslim) Style (to construct their buildings on the pattern of Iran and Central Asia). ✓ Introduction of trabeated system(post & lintel), Islamic brick architecture, domed 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.

	<p>vehicle.</p> <ul style="list-style-type: none"> ✓ Regarding Turko-Persian influences, impact of Mughals be discussed briefly. 	
<p>Mughal period(1526-1857)Architecture</p> <p>a) Lahore Fort, Lahore b) Taj Mahal, Agra c) The Badshahi Mosque, Lahore</p>	<ul style="list-style-type: none"> ✓ Time line ✓ Political and geographical background 	<ul style="list-style-type: none"> ✓ 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
<p>Miniature Paintings or the Art of book miniature paintings form:</p> <p>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</p>	<ul style="list-style-type: none"> ✓ 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 	<ul style="list-style-type: none"> ✓ 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
	<p>Colonial period: British Raj, British colonial rule in India, 1858 to 1947.</p>	<p>Company style</p>

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

2D FINEARTS

DRAWING/ PAINTING

- Portrait 3
- Life drawings 6
- Nature Drawings 3
- Landscape 2
 - Technique: as per requirement
 - 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 Dewey 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 shares 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**