University of Gujrat.

OUTLINES OF TEST
&
COURSES OF READING

BACHELOR OF ARTS & Science

(PASS COURSE ANNUAL SYSTEM)

Examination 2005, Onwards

University of Gujrat.

Append-I

UNIVERSITY OF GUJRAT

Annual System of Examination (B.A./B.Sc.) University of Gujrat.

In a meeting Chaired by Vice Chancellor attended by registrar, coordinator syllabus and Principals of constituent Colleges of the University of Gujrat. Following scheme of courses / examination was approved in anticipation of approval of syndicate.

B.A. (3rd Year--- Part I)

1.	English (Compulsory)	100
2.	Two Elective Subject	100+100 = 200
3.	Pakistan Studies (Compulsory)	40
		Marks 340

B.A. (4th Year---Part II)

1.	English (Compulsory)	100
2.	Two Elective Subject	100+100 = 200
3.	Islamic Education (Compulsory)	60
4.	Optional (One Subject)	100
		Marks 460

B.Sc. (3rd Year---Part I)

1.	English (Compulsory)	50
2.	Three Elective Science Subject	100+ 100+100 = 300
3.	Pakistan Studies (Compulsory)	40
		Marks 390

B.Sc. (4th Year---Part II)

1.	English (Compulsory)	50
2.	Three Elective Science Subject	100+ 100+100 = 300
3.	Islamic Education (Compulsory)	60
		Marks 410

Append-II

BACHELOR OF ARTS EXAMINATION

PASS COURSE (Annual System)

ELECTIVE SUBJECTS

1. Every candidate shall be required to offer English Language (200 Marks) and Islamiat & Pakistan Studies (60+40 = 100 Marks) as a Compulsory subjects and any two of the following Elective subject carrying 200 marks each:-
    1. Psychology
    2. Arabic
    3. Economics
    4. Education
    5. English Literature
    6. Fine Arts
    7. Geography
    8. Health and Physical Education
    9. History
    10. Home Economics
    11. Islamic Studies
    12. Mathematics (General)
    13. Mathematics A-Course
    14. Mathematics B-Course
    15. Journalism
    16. Persian

17. Physical Education
18. Political Science
19. Punjabi
20. Sociology
21. Social Work
22. Statistics
23. Home Economics

A. **In addition, there shall be one optional subject carrying 100 marks from among the following:**

1. Arabic
2. Mathematics A-Course
3. Mathematics B-Course
4. Economics
5. History
6. Home Economics
7. Islamic Studies
8. English Literature
9. Fine Arts
10. Library Science
11. Political Science
12. Persian
13. Punjabi
14. Urdu
15. Health and Physical Education
16. Journalism

Note: At present Arabic, Persian, Punjabi, Islamic Studies are offered as optional subjects.

Provided that no candidate shall be permitted to offer as optional a subject which he / she has offered as Elective.

The medium of examination in all subjects, except languages, shall be Urdu. English at the option of the candidate. The medium of examination in Pakistani Language shall be the language concerned. The medium of examination in Arabic and Persian shall be Urdu. English or the language concerned at the option of the candidate.

Regulations

For regular B.A / B.Sc. students there shall be B.A / B.Sc. Examination in two parts.

The B.A / B.Sc. Part-I Examination shall be held at the end of third year in the subjects being taught in the affiliated colleges, constituent colleges, university departments on such as dates, as may be notified by the controller of Examinations. Any student who after completing the prescribed course of lectures does not appear in the Examination or fail to qualify at least two papers of 100 marks (compulsory / Elective) shall be eligible to appear as a regular student in the B.A / B.Sc. Part-II Examination. Such students who have been given exemption may pass their remaining subjects of B.A / B.Sc. Part-I along with B.A / B.Sc. part-II Examination.

1. The examination shall be opened to:
    A) Any college student who:
        (i) has been on the rolls of a college, affiliated to the University throughout one academic year proceeding the B.A / B.Sc. (Part-I) examination provided he/she either already completed the prescribed course or has attended and completed the first year's course in one academic year without break and has not discontinued his/her studies for more than two years (the syndicate may condone a deficiency in this period for every special reasons)

ii) Has passed not less than one Academic year previously the Intermediate examination in the Arts or Science from any Board of Intermediate and Secondary Education. Examination from the Board of Technical Education Punjab, Lahore or any other examination considered equivalent thereto of any other recognized Board, provided that in the case of a candidate who passes the Intermediate examination after having earned exemption and has to reappear in one subject only the period of one academic year shall be counted from the year in which he/she earned exemption.

iii) Has his/her name submitted to the Controller of Examination by the Principal of the College he/she has most recently attended.

iv) Produces the following certificate signed by the Principal of the College he/she has most recently attended.

(a) of good character:

(b) of having attended not less than 75% of the full course of lectures delivered in each of the subjects in which he/she desired to be examined. The Principals of affiliated colleges or the Chairman of the relevant University Teaching Department, as the case may be, may condone for valid reasons a deficiency upto 5% in theory and practical of each subject and optional subjects. Candidate falling short of lectures or practical above this percentage shall not be permitted to appear in the Annual Examination to be held in April / may but shall be permitted to appear in the Next Annual Examination.

(c) Of having satisfactorily performed the work of the class and obtained E or above grades in home Examinations.

(d) In the case of candidate intending to appear at a practical examination in a Science subject or in Fine Arts of having attended not less than 75% of the periods assigned to practical work in that subject.

(e) Any student who has qualified all or at least two papers of 100 marks of B.A / B.Sc. Part-I examination and has been on the roll of college affiliated to the University throughout two academic years preceding the B.A / B.Sc. Part-II examination on the fulfillment of conditions given at regulations 1 (A-iii & iv) above.

B) Any private external Degree candidate who is admitted by the special order of the syndicate, and who has passed no less than two academic years previously the Intermediate Examination in the Arts or Science from the Board of Intermediate and Secondary Education. Examination from any Board of Technical Education, Punjab, Lahore or any other examination considered equivalent thereto of any other recognized Board; provided that in the case of a candidate who passes the Intermediate examination after having earned exemption and has to appear in one subject only, the period of two academic years shall be counted from the years in which he/she earned exemption. Provided that a candidate who has passed the Cambridge Higher School Certificate Examination for General Certificate in Education, if he/she has been enrolled in a college affiliated to the University in the year proceeding the year of examination. Such student is permitted to be enrolled provisionally in an affiliated college in anticipation of the declaration of the result of his/her Cambridge Higher School Certificate examination or the examination for General Certificate in Education. Provided further that the Syndicate shall have power to exclude any candidate from the examination, if it satisfied that such candidate is not a fit person to be admitted thereto.

2. Change in subject is permitted unless there is a difference of one or in the two examinations.

3. A candidate who has failed in B.Sc. shall be allowed to do B.A. in one academic year provided it involves a change of one subject, but when it involves a change or more than one subject, the candidate must do B.A. in two years as in the normal course.

4. Two hundred marks shall be allotted to each subject except that in case of an optional subject & the compulsory paper: Islamiat & Pakistan Studies / Ethics,

the marks allotted to these papers shall be one hundred.

5. The minimum number of marks required to pass this examination shall be 33% in each subject (separately in written, practical, provided that a candidate who passes in two more subjects but fails in one subject or part there of by three marks or less, shall be deemed to have passed examination, even if he/she takes the examination as a whole or in parts.

6. Successful candidate who gains 60 percent or more marks in aggregate shall be placed in the first division, those who gain not less than 45 percent in the second division and all below in the third division. Provided that if a candidate miss first

or second division by 5 marks or less he/she shall be awarded grace marks up to the maximum of 5 and placed in the First or Second Division as the case may be. A candidate who is declared successful after getting grace marks shall not be given grace marks for being placed in a higher division.

7. A candidate who passes examination in any division shall be given only one chance to improve his/her division/marks either as a regular or private candidate in any of the four consecutive examination after passing the B.A/B.Sc examination. The candidate who improves his/her division/marks shall surrender his/her previous result card and degree in original to the University for cancellation.

The candidate desiring to improve their division shall not be allowed to change their subjects. Provided there is at least one year's interval between the two examinations.

8. If a candidate secures 33% or more marks in a subject/subjects but fails in the examination, he/she shall, if he/she shall, if he/she so desires be given exemption from appearing in such subject/subjects in a subsequent examination on payment of the same fee as for the whole examination on each occasion, Provided that such candidates shall clear the whole examination within subsequent four consecutive/ (availed or un-availed). If they fail to clear the whole examination within the above mentioned chances, they shall have to appear in the whole examination in their next attempt

9. Any candidate who has passed the Fazil Examination in Arabic, Persian etc, or Urdu of the recognized University or Board, shall if he/she desires be exempted from passing in that language, provided that he/she appears in the

BA. Examination within two years of his/her passing, and that in awarding marks for that language in which he/she may have obtained a certificate "pass marks" be taken as representing the value of these marks.

10. (a) within a period of four weeks, or as soon as possible after the termination of the examination, the Controller of Examinations shall publish a list of
successful candidates showing the total number of marks obtained by them.

(b) Each successful candidate shall be granted a Degree of Bachelor or Arts, stating the division in which he/she has passed. The fact whether a candidate has passed the examination in parts or as whole or as an external candidate shall be indicated on the same degree.

11. Subject to the provision of Statutes 1, a candidate who is a graduate of this University or of another University whose Degree Examination is recognized as equivalent to Degree Examination of this University may on payment of the prescribed fee, be allowed to appear at any subsequent Examinations in any one or more subject (s) prescribed for this examination except the subject(s) in which he/she has already passed the Examination, provided that in the case of Science subject/ subjects the candidate has attended the prescribed number of practicals for the subjects/subjects in an institution affiliated for B.A degree of this University. Such candidate on obtaining at least 33 percent marks in the written papers as well as practical of that subject or subjects, shall be declared to have passed in that subject or subjects and granted a certificate to that effect.

12. Every candidate for B.A Examination shall forward his/her admission form to the Controller of Examination by the date fixed for the examination, accompanied by the prescribed fee each time when he/she appears in the examination, whether in one or more subjects and statement showing the subjects in which he/she desires to be examined.

13. A candidate who fails to pass or to present himself/herself for the examination shall not be entitled to claim a refund of fee. However, the fee shall be refunded to the legal heirs of a candidate who dies before the commencement of the examination.

14. The failed candidates can submit their Admission forms to reappear in the various University examination on such dates as notified by the Controller of Examinations from time to time.
15. Whenever, the application or the fee is received more than three days after the last dates notified by the Examinations Branch for the purpose he/she shall pay the prescribed late fee/double fee as the case may be, provided that such application shall not be entertained, under any circumstances, if it is not received at least 30 days before the date of commencement of examination.
16. The admission and permission forms shall be submitted together and late fee shall be charged even if permission cum admission form is submitted after the expiry of the last date fixed for the receipt of admission forms.
17. All other matters relating to this discipline shall be dealt in accordance with General Regulations of the University examinations.
18. A candidate who passed examination in any division shall be given only one chance to improve his division / marks either as a regular or private candidate in any of the four consecutive examinations after passing B.A. / B.Sc. examination. The candidate who improves his division/marks shall surrender his previous result card and degree original to the University for cancellation. However a candidate who passed BA./B.Sc. examination (Part-wise) without repeating the papers of 3^{rd} year with the 4^{th} year examination shall be given only one chance to improve his/her division/marks of 3^{rd} or 4^{th} year examination in parts or as whole as a regular student in any one of the four consecutive examinations after passing 3rd or 4^{th} year part-wise or as a whole B.A./B.Sc. examination. The candidate who improves his/her division/marks shall surrender his/her previous result cards and degree in original to the University for cancellation.
19. A casual student can appear in the practical subjects Examination by providing a certificate that he/she has performed the concerned practicals in any constituent/affiliated colleges.

SUBJECTS

BACHELOR OF SCIENCE EXAMINATION

PASS COURSE (Annual System)

Groups of Elective Subjects

1. Every candidate shall be required to offer English Language and Islamiat Islamiat/Ethics & Pakistan Studies (60+40=100 Marks) as a compulsory subject carrying 100 marks each and any one of the following groups of elective subjects. Every subject of these groups shall carry 200 marks,

    1. Physics, Mathematics General and Chemistry.
    2. Physics, Mathematics General and Statistics.
    3. Physics, Mathematics General and Geography.
    4. Physics, Mathematics General A Course and Mathematics B Course.
    5. Statistics ,Mathematics A Course and Mathematics B Course.
    6. Geography, Botany and Zoology.
    7. Zoology, Chemistry and Botany.
    8. Zoology ,Chemistry and Geography.
    9. Zoology, Chemistry and Statistics.
    10. Botany, Chemistry and Statistics.
    11. Botany, Chemistry and Geography.
    12. Psychology, Statistics and Geography.
    13. Psychology, Mathematics General and Geography.
    14. Economics, Statistics and Geography.
    15. Statistics, Mathematics General and Economics
    16. Physics, Chemistry and Statistics.
    17. Psychology, Statistics and Mathematics General.
    18. Mathematics A Course, Mathematics B Course and Chemistry.
    19. Computer Science Statistics, Math General / Physics
    20. Computer Science Math A, Math-B Course / Statistics
    21. Computer Science, Physics & Math General.

    The medium of examination in all subjects except English Languages shall be

Urdu or English at the option of the candidate. The medium of examination in English Language shall be English.

Note: The Students who take up Chemistry / Mathematics with Psychology at B.Sc. level shall not be admitted to the M.Sc. classes in Mathematics.

Note: The Candidates who Pass B.Sc. Examination with Physics and General Mathematics and wants to join M.Sc. course in Mathematics or appear in this Examination shall qualify in Paper `A` of B-Course of Mathematics.

Candidates offering Physics and General Mathematics at the B.Sc. level and desirous of joining Mathematics, may at their option appear in paper `A` of B-Course of Mathematics along with rest of the papers. However, the marks obtained by them in this paper shall not be counted towards Division, but the fact that they have qualified in Paper `A` of B-Course of Mathematics shall be mentioned on their Result Cards.

ARABIC

منهج اللغة العربية وأدبها لمرحلة بكالوريوس

(المادة الاختيارية)

(الورقة الاولى (اللغة العربية)

(عربی نصاب برائے بی۔ اے اختیاری)

بی ۔اے کی سطح پر عربی اختیاری (Elective)کے دو پرچے ہوں گے اورھر ایك پرچے کے لیے کل نمبر 100 ہوں گے۔

Paper-I (For 3rd Year)

الورقة الاولى اللغة العربية مجموع الدرجات :100

(الف)۔ ١۔ التعارف، ٢۔ فی الفندق، ٣۔فی المطار ٤۔ فی البنك / المصرف ٥۔ فی مكتب البريد ٦۔فی مكتب الهاتف والبرق ٧۔فی قسم الشرطة ٨۔ عند الخضری والفاكهی ٩۔ فی المطعم ١٠۔ عند البقال والجزار ١١۔ عند الطبيب ١٢۔البحبث عن شقة ١٣۔ عند الخياط ١٤۔ عند الحلاق ١٥۔ فی الصيد لية، ١٦۔ طريقة استخدام المعاجم ١٧۔ تعرف على العالم العربی ١٨۔ كيف تقرأ الجريدة

II۔ درج ذیل جزئیات شامل نصاب کرنے کی تجویز ھے۔

(ب)۔ المقالات : الموضوعات المختارة

طلبات: طلب الاجازة، طلب العمل ، طلب الاعفاء عن الرسوم۔

١ — الاسلام ٢ — خلق النبی ﷺ

٣ — اللغة العربيه ٤ — القرآن الكريم

٥ — القائد الاعظم ٦ — العلامة محمد اقبال

٧ — الكلية ٨ — الطائرة

٩ — رحلة سعيدة ١٠ — وطنی باكستان

(ج)۔ الرسائل

من الوالدالی ولده والرد عليه من الصديق / الصديقة الی صديقه / صديقته من الطالب الی مدير المعهد من الطالب الی مدير المكتبة لا شتراء الكتب

(د)۔ الانشاء الترجمه الی العربية، المحادثة الشفوية/ گرامر کی تطبیقی انداز میں تدریس ہوگی۔ مندرجه ذیل قواعد کی تدریس کی تجویز ھے۔

جمله اسمية و فعلية، مركب اضافی و توصيفی مذكر مؤنث ، مفرد تثنيه و جمع۔ جار مجرور ابواب اور صیغے بنانے کے عمل پر مشقیں

تجویز کردہ کتب (الكتب المقترحة)

١۔ الكتاب الاساسى
مطبوعه تيونس
٢۔ اللسان العربى
علامه اقبال اوپن يونيورسٹى، اسلام آباد
٣۔ القراء ة المفيدة والقراء ة العربية الميسرة
٤۔ تكلم العربية
٥۔ المفيد فى المحادثات العربيه ،
٦۔ دروس اللغة العربية،
علامه اقبال اوپن يونيورسٹى،اسلام آباد
دكتورف ، عبدالرحيم۔دارالعلم 699۔ آبپاره ماركيٹ
،اسلام آباد
٧۔ الطريقة العصرية لتعليم اللغة العربيه
٨۔ القرء ة الراشدة العربيةمجلس نشريات اسلام، كراچى
د/عبدالرزاق سكندر
٩۔ تعليم اللغة العربية للباكستانيين لجنة اساتذه قسم اللغة العربية الجامعة الاسلامية بهاول بور۔
١٠۔ اللغة العربيةلجنة اساتذه جامعة بنجاب مقرربكالوريوس لجامعة بنجاب لاهور۔
١١۔ تكلم العربية۔
تاليف : د / محمود اسماعيل صينى ناصف عبدالقدير مصطفى مختار
طاهر حسين معهد اللغة العربية، جامعة ملك السعود ۔ الرياض

Paper-II (For 4th Year)

الادب العربى

مجموع الدرجات :100

١ — الشعر:

مختارات من العصر الجاهلى الى العصر الحديث

٢ — النثر:

١ — مختارات من القرآن الكريم و الحديث النبوى

٢ — نماذ ج ادبية مختارة من مختلف العصور

الكتب المقترحة :

١ — امنهج العربى، مقرر بكالوريس لجامعة بنجاب لاهور

===

عربی آپشنل بی اے

کل نمبر ۱۰۰

عربی آپشنل کیلئے علامہ اقبال اوپن یونیورسٹی اسلام آباد کی مطبوعہ کتاب بعنوان

"اللسان العربی" ساری کورس میں شامل ہے

BOTANY

The following syllabus has been prepared in accordance with the criteria announced by the Higher Education Commission of Pakistan.

NOTE: Students will be asked to attempt FIVE questions of equal marks including a compulsory question comprising of parts with short answers from the whole syllabi and another four question for the remaining questions.

PAPER-I (3RD YEAR)

Paper-I, Diversity of plants	38 marks
Paper-II, Plant Systematic, Anatomy & Development	37 marks
Practical based on Paper-I & II	25 marks

Time 4 hours

Paper-III, Cell Biology and Genetics	38 marks
Paper-IV, Physiology & Ecology	37 marks
Practical based on Paper-II & IV	25 marks

Time 4 hours

OUT LINE OF STUDY

PAPER-I (For 3rd Year)

Diversity of Plants

Definition, scope and classification of the kingdoms, Basic concepts of evolution in plant diversity

1. Viruses:

a. General structure, types and reproduction of viruses

b. Viral diseases and their economic importance

2. Kingdom Monera Prokaryotae (Bacteria and Cyanobacteria)
   General structure, reproduction, classification and economic importance (such as Nitrogen Cycle and industrial role)

3. Kingdom Protista / Protoctista: (Algae)

a. General structure, occurrence, reproduction and economic importance

b. Classification of algae with specific examples:

   i.. Chlorophyta:*Volvox*

   ii. Charophyta:*Chara*

   iii. Vaucheriophyta:*Vaucheria*

iv. Bacillariophyta:*Pinnularia.*

v. Phaeophyta:*Laminaria*

vi. Rhodophyta:P*olysiphonia*

4. Kingdom Fungi

a. General structure, life cycle, classification with specific examples:

i. Plasmodiophoromycota *Plasmodiophora*

ii. OomycotaPythium

iii. Ascomycota*Penicililum, Saccharomyces, Alternaria*

iv. Basidomycota *Ustilago, Puccinia* and *Agaricus*

b. Role of fungi in agriculture, diseases of major economic crop plants: rusts, smuts, downy-and powdery mildews, damping off, root rots food and industry

Lichens

General account, structure and life history of *Physcia*

5. Kingdom Plantae

a. Bryophyta (Atracheophyta)

General account, reproduction, classification, affinities and ecological importance with special reference to the life cycle of *Anthoceros, Porella and Polytricum.*

b. Pteridophyta (Tracheophyta)

General account, structure, life cycle and biological importance with specific examples:

i. Psilopsida:*Psilotum*

ii. Lycopsida:*Selaginella*

iii. Sphenopsida:*Equisetum*

v. Pteropsida: *Adiantum and Marsilia*

c. Gymnospermae (seed plants) General account with reference to structure and life history of *Cycas, Pinus* and *Ephedra* and their affinities.

d. Angiospermae Introduction: distinguishing features of Angiosperms.

Practical based on Paper-I & II

Experiment = marks

Viva Voce = marks

General culturing, maintenance, preservation and staining of microorganisms. Study of the morphology and reproductive structures of the types mentioned in theory paper. Identification of various types mentioned from prepared slides and fresh collection.

Collection of diseased specimens of plants and their identification.

Books Recommended

1. Bold, H.C., Morphology of Plants, 2nd ed. Harper & Row, N.Y.
2. Hafiz, A. (1986). Plant Diseases. Pakistan Agricultural Research Council, Islamabad, Pakistan.
3. Lee, R.E. (1999). Phycology. Cambridge University Press, U.K.
4. Mauseth, J.D~ (1998). An Introduction to Plant Biology: Multimedia Enhanced. Jones and Bartlett Pub. U.K.
5. Moore, R. C., W.D. and Vodopich, D.S. (1998). Botany. McGraw Hill Company, U.S.A.
6. Pandey, S.N. (1994). Text Book of Botany Vol.11 S. Chand & Co, New Dehli.
7. Raven, P.H., Evert, R.E. and Eichom, S.E. (1999). Biology of Plants. W.H. Freeman and Company Worth Publishers.
8. Ray, P.M., Steeves, TA. and Fultz, TA. (1998). Botany. Saunders College Publishing, USA.
9. Ross, F.C. (1994). Introduction to Microbiology. John Willy, USA..

PAPER-II

(For 3rd Year)

PLANT SYSTEMATICS, ANATOMY AND DEVELOPMENT

Plant Systematics

I. Introduction to plant systematics its aims, objectives and importance.

2. Classificatien: Importance brief history, introduction various systems of classification
   - (i) Engler and Prantels System
   - (ii) Bentham and Hooker's System

3. Brief introduction to nomenclature; Importance of Latin names, system with an introduction to international code of Botanical Nomenclature (ICBN).

4. Morphology and Phytography - a detailed account of various morphological characters of root, leaf, inflorescence, flower, placentation and fruit types.

5. Diagnostic characters, economic importance and distribution pattern of the following families:

1. Ranunculaceae
2. Brassicaceae (Cruciferae)
3. Fabaceae (Leguminosae)
4. Rosaceae
5. Euphorbiaceae
6. Rutaceae
7. Cucurbitaceae
8. Solanaceae
9. Lamiaceae (Labiatae)
10. Asteraceae (Compositae)
11. Liliaceae
12. Poaceae (Gramineae)

Anatomy and Development

1. Cell wall; structure and chemical composition
2. Tissue and Tissue System: Concept; structure and function of various tissues. e.g, Parenchyma, Chlorenchyma, Collenchyma, Sclerenchyma, Xylem and phloem
3. Primary Structure of root, stem and leaf. Definition and various type of meristems. Primary and secondary growth of dicot stem.
4. Early development of plant body (embryology) *Capselabursa-pastoris or Arabidopsis*

Practical based on Paper-II.

Experiment = marks

Viva Voce = marks

1. Study of cross section of monocot and dicot stem.
2. Study of the simple and compound tissue in macerated and sectioned material.
3. Study of cross section of bifacial leaf.
4. To study the prepared slides of secondary growth in dicot stem.
5. Identification of families given in syllabus with the help of keys.
6. Technical description of common flowering plants belonging to families mentioned in theory syllabus.
7. Field trips shall be undertaken to study and collect local plants.
   Students shall submit 40 fully identified herbarium specimens.

Books Recommended

1. Bold, H.C., (1997). Morphology of Plants. Harper & Row, N,Y.
2. Dickison, W.C. (2000). Integrative Plant Anatomy. Academic Press, UK.
3. Fahn, A. (1990) Plant Anatomy. Pergamon Press, UK.
4. Mauseth, J.D. (1998). An Introduction to Plant Biology: Multimedia Enhanced. Jones and BartlettPub. UK
5. Moore, R.C., W.D. Clarke and Vodopich, D.S. (1998). Botany. McGraw Hill Company, U.S.A.
6. Raven, P.H., Evert, R.E. and Eichhom, S.E. *(1999).* Biology of Plants. W.H. Freeman and Company Worth Publishers.
7. Ray, P.M., Steeves, T.A. and Fultz, TA. (1998). Botany. Saunders College Publishing, USA.
8. Stuessy, T.F. (1990). Plant Taxonomy. Columbia University Press,

PAPER-III

(For 4th Year)

CELL BIOLOGY, GENETICS AND EVOLUTION

Cell Biology

1. Structures and Functions of Bio-molecules
   (i) Carbohydrates (ii) Lipids (iii) Proteins (iv) Nucleic Acids
2. Cell: The Physico-chemical nature' of plasma membrane and cytoplasm.
3. The ultrastructure of plant cell with a brief description and functions of the following organelles
   i. Endoplasmic reticulum
   ii. ii. Plastids
   iii. Mitochondria
   iv. Ribosomes
   v. Dictyosomes
   vi. Vacuole
   vii. Microbodies (Glyoxysomes + Peroxysomes)
4. Nucleus: Nuclear membrane, nucleolus, ultrastructure and morphology of chromosomes, karyotype analysis
5. Reproduction in somatic and embryogenic cell, mitosis & meiosis, cell cycle
6. Chromosomal aberrations.

i. Changes in the number of chromosomes. Aneuploidy and euploidy

ii. Changes in the structure of chromosomes, deficiency, duplication, inversion and translocation.

Practical

1. Study of cell structure using compound microscope of ultrastructure 'from electron microphotographs and elucidation
2. Measurement of cell size.
3. Study of mitosis and meiosis by smear/squash method and from prepared slides.
4. Study of chromosome morphology and variation in chromosome number.
5. Extraction and estimation of carbohydrate, protein, RNA, DNA from plant sources.

Genetics

1. Introduction, scope and brief history of genetics. Mendelian inheritance; Laws of segregation and independent assortment, back cross, test cross, dominance and incomplete dominance.
2. Sex linked inheritance, sex linkage in Drosophila and man (colour blindness), XO, XY, WZ mechanism, sex limited and sex linked characters, sex determination.
3. Linkage and crossing over: Definition, linkage groups, construction of linkage, maps, detection of linkage.
4. Molecular genetics: DNA replication. Nature of gene, genetic code, transcription, translation, protein synthesis, regulation of gene expression (e.g. *lac* operon).
5. Transmission of genetic material in Bacteria: Conjugation and gene recombination in *E.coll,* transduction and transformation.
6. Principles of genetic engineering /biotechnology; Basic genetic engineering techniques.
7. Application of genetics in plant' improvement: # Induction of genetic variability (gene mutation, recombination), physical and chemical mutagens, selection, hybridization and plant breeding techniques, establishment of varieties, release of new varieties.
8. Introduction of genetic conservation
9. Evolution

Practical

1. Genetical problems related to transmission and distribution of genetic material.
2. Identification of DNA in plant material. Carmine, orcein staining.
3. Study of salivary gland chromosomes of Drosophila.

Book Recommended

1. Hoelzel, A. R. 2001. Conservation Genetics. Kluwar Academic Publishers.
2. Dyonsager, V.R. (1986). Cytology and Genetics. Tata and McGraw Hill Publication C6. Ltd., New Dehli.
3. Lodish. H. 2001. Molecular Cell Biology. W. H. Freeman and Co.
4. Sinha, U. and Sinha, S. (1988). Cytogenesis Plant Breeding and Evolution, Vini Educational Books, New Delhi.
5. Strickberger, M.V. *(1988).* Genetics, MacMillan Press Ltd., London.
6. Carroll, S.B., Grenier, J.K. and Welnerbee, S.d. 2001. From DNA to Diversity - Molecular Genetics and the Evolution of Animal Design. Blackwell Science.
7. 1-ewin", R. 1997. Principles of Human Evolution. Blackwell Science.

PAPER-IV (For 4th Year)

PHYSIOLOGY AND ECOLOGY

Physiology

1. Types and properties of solutions. Electrolytes and non-electrolytes. SI units for expressing concentration of solutions, acids, bases and salts pH. Definition of buffers and their role in biological systems. Colloidal systems, their nature, properties, and biological significance.
2. Water relations (water potential, osmotic potential, pressure potential, matric potential). Absorption and translocation of water. Transpiration, factors affecting transpiration. Stomatal structure and functions.
3. Mineral nutrition: Soil as a source of minerals. Passive and active transport of nutrients. Essential mineral elements, their role and deficiency symptoms with emphasis on N, K,P & Ca.
4. Enzymes: Definition, nature, classification and properties.
5. Photosynthesis: The process; absorption and action spectra. Mechanism: light reactions (electron transport and photophosphorylation) and dark reactions

(Calvin cycle). Factors affecting this process; concept of limiting factors, Products of photosynthesis.

6. Respiration: Definition and mechanism, Glycolysis, Krebs cycle. Electron transport system and oxidative phosphorylation. Anaerobic respiration. Respiratory substrates and respiratory quotients.
7 Nitrogen Metabolism: Biological nitrogen fixation.
8 Growth: Definition; role of auxins, gibberellins, cytokinins, abscisic acid and ethylene in controlling growth. Introduction to plant tissue culture.
9 Photoperiodism: Definition, historical background, short day, long day and day neutral plants. Role of phytochromes and hormones in photoperiodism.
10 Dormancy: Definition and causes of seed dormancy; methods of breaking seed dormancy.
11. Vernalization: Annual and biennial forms - Hormonal concept and phasic development theory.
12. Plant Movements: Tropic movements - phototropism, gravitropism and their mechanisms. Nastic movements.

Practical:

1. Preparation of solutions of specific normality of acids/bases salts, sugars, molal and molar solutions and their standardization.
2. Determination of uptake of water by swelling seeds when placed in sodium chloride solution of different concentrations.
3. Measurement of leaf water potential by the dye method.
4. Determination of the temperature at which beet root cells lose their permeability.
5. Determination of the effects of environmental factors on the rate of transpiration of a leafy shoot by means of a photometer/by cobalt chloride paper method.
6. Tests for sugars (Reducing and non-reducing). Glucose, sucrose, maltose, fructose.
7. Chemical tests for the following cell constituents:
    i. Starch
    ii. Cellulose
    iii. Lignin
    iv. Proteins

8. Extraction of chlorophyll from the leaves and separation of component pigments on a paper chromatogram. Study of absorption spectra using spectrophotometer.
9. Comparison of the effects of green, red and blue-coloured light on the amount of oxygen evolved by a photosynthesizing plant.
10. Estimation of oxygen utilized by a respiring plant by winklers method.
11. Extraction of amylase from germinating wheat seeds and study of its effect on starch breakdown.
12 Measurement of carbon dioxide evolution during respiration of germinating seeds by the titration method.
13. Determination of leaf area index.
14. Measurement of growth by leaf area increase method.
15. Study of different stages of seed germination.

Books Recommended

1. Ihsan Ellahi (1995). Plant Physiology, Biochemical Processes in Plants, UGC Press.
2. Witham & Devlm. 1986 Exercises in Plant Physiology, AWS Publishers, Boston.
3. Taiz, L. and Zeiger, E. 1998. Plant Physiology. 2nd Ed. Sinauers PubI. Co. Inc. Calif.
4. Salisbury F.B and Ross C.B. i999. Plant Physiology. 5th Edition. Wadsworth Publishing Co. Belmont CA.
5. W.B. Hopkins. 1999. Introduction to Plant Physiology. 2nd Ed. John Wiley & Sons. New York.

Ecology

1. Concepts of Ecology
2. Brief history of Ecology (General, Pakistan)
3. Ecophysiology
   a) Light and temperature responses
      i. Quantity of light
      ii. ii. Variation in light (temperature)
      iii. Ecophysiological responses

   b) EdaphoIogy
      i. Brief introduction of soil forming process

ii. Texture, structure, and water

iii Chemical Properties

iv. Biological components: Soil Organisms, Organic matters

c) Water:

i. Precipitation: kinds, and affectivity.

ii. Distribution of vegetation in relation to moisture.

d) Wind - Ecological importance of wind,. Population Ecology:

A brief introduction, history and background. Seed dispersal, Seed bank, demography, reproductive strategy.

5. Community Ecology:

i. Concept of plant community- attributes

ii. Sampling methods

iii. Succession- history, concept, development and modern theories of succession

iv. Brief concept of productivity. I

v. Local vegetation

6. Ecosystem:

i. Definition and background

ii. Ecological energetic

iii. Biogeochemical cycle (Hydrologic and nitrogen cycle).

7. Applied Ecology

Aridity, biodiversity, conservation, water logging and salinity, pollution, erosion, desertification, management.

Practical based on Paper III & IV

Time 4 hours

1. Measurement of light and temperature

Marks 25

2. Effect of light and temperature on seed germination
3. Determination of soil texture by hydrometer method

4. Determination of maximum water holding capacity.
5. Determination of carbonates, electrical conductivity and pH in Soil and Water.
6. Measurementof wind velocity
7. Population demographic techniques
8. Measurement of vegetation by Quadrat and plotless methods
9. Determination of productivity by harvest method
10. Several trips to ecologically diverse vegetations.

Books Recommended

1. Ricklefs, R.E. 2000. Ecology. W.H. Freeman & Co., UK.
2. Ricklefs, R.E. 2001. The Economy of Nature. W.H. Freeman & Co., UK.
3. Barbour, M. G., J. H. Burke and W.D. Pitts. 1999. Terrestrial Plant Ecology, The Benjamin, Cumming Publishing Co. Palo Alto, California, USA.
4. Chapman, J.L. and Reiss, M.J. 1999 Ecology: principles and applications: Cambridge University Press.
5. Hussain F. 1989. Field and Laboratory Manual of Plan Ecology. National Academy of Higher Education, Islamabad.
6. Krebs, C. J. 1997. Ecology. Harper and Row Publishers.
7. Moore, P. D. and S. B. Chapman. 1986. Methods in Plant Ecology. Blackwell Scientific Publication, Oxford.
8. Smith, R. L. 1996. Ecology and Field Biology. Addison Wesley Longman, Inc., New York.
9. Smith, R: L. 1998. Elements of Ecology. Harper & Row Publishers, New York.
10. Stiling O.D. 1996. Ecology: Theories and applications. Prentice Hall, New Jersey.
11. Subrahmanyam, N.S. and Sambamurthy, A.V.S.S. 2000. Ecology. Narosa Publishing House, New Delhi.
8. Townsend, C.R., Harper, J.L. and Begon, M.E. 2000. Essentials of Ecology. BlackwelI Scientific Publications, UK.

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CHEMISTRY

The following Syllabus for Chemistry B.Sc. Part-I (III Year) & Part-II (IV Year) has been prepared in accordance with the guidelines given by the Higher Education Commission of Pakistan.

Scheme of Study

B.Sc. Part-I (For 3rd Year)

Paper I	Organic Chemistry	Marks: 38	Time: 3 Hours
Paper II	Applied Chemistry	Marks: 37	Time: 3 Hours
Paper V	Practical	Marks: 25	Time: 4 Hours

Total Marks: 100

B.Sc. Part-II (For 4th Year)

Paper III	Physical Chemistry	Marks: 38	Time: 3 Hours
Paper IV	Inorganic Chemistry	Marks: 37	Time: 3 Hours
Paper VI	Practical	Marks: 25	Time: 4 Hours

Total marks 100

NOTE: In each Part

Q.No.1: Objective Compulsory Paper I, Paper III = 6 marks & Paper-II, Paper IV = 5 marks

Section (I) Four Questions (8 marks)

Section (II) Four Questions (8 marks)

Attempt Two Questions from each section. Every Question carries 8 marks.

B.Sc. Part-I

Paper I

- ORGANIC CHEMISTRY: SECTION-I

1. BASIC CONCEPTS IN CHEMICAL BONDING

Localised and delocalised chemical bonding, rules of resonance, resonance effect. Steric inhibition of resonance, resonance energy, inductive effect. Dipole moment and its applications

to structure and reactivity of organic compounds. Hyper conjugation, Tautomerism.

2. HYDROCARBONS

ALKANES. Nomenclature. Preparation from (1) alkyl halides (ii) alcohols (iii) carbonyl compounds and (iv) carboxylic acids.

REACTIONS Halogenation, nitration, sulphonation, pyrolysis and dehydrogenation
ALKENES Preparation from (i) Pyrolysis of esters. (ii) Chugaev reaction (iii) Cope reaction (iv) Hofmann reaction (v) Wittig reaction
REACTIONS. Hydrogenation and its application, halogenation and hydrohalogenation. Markownikoff and Anti-Markownikoff addition, hydration, hydroboration, different ways of oxidation. Isomerization. Tests for the identification of double bond.
ALKYNES Preparation. Dehydrohalogenation, of dihalides, alkylation of acetylene.
REACTIONS Partial hydrogenation, halogenation, addition of HX HCN, CH_3COOH & H_2O, oxidation of alkynes having acidic hydrogen Comparison of the reactivity of alkenes and alkynes.
CYCLO-ALKANES Preparation by carbene addition, Perkin reaction, Deils-Alder reaction, Simon-Smith reaction. Reactions of small sized cyclo alkanes, structure of small sized cyclo alkanes.

3. AROMATIC HYDROCARBONS

Nomenclature. Historical development of structure of benzene, aromaticity (Huckle's Rule) Aromatic electrophilic substitution w.r.t. halogenation, nitration, sulphonation, Friedal-Craft
reaction, and formylation. Orientation and reactivity.

4. ISOMERISM

Geometrical isomerism: Determination of configuration of geometrical isomerism, Z, E convention and cis, trans isomerism in compounds containing two double bonds; Optical isomerism: Optical activity, chirality and optical activity, racemisation and resolution of racemic mixtures, R, S notation, diasteroisomers.Conformational isomerism: Brief introduction
to conformation of ethane, n-butane and cyclohexane.

SECTION –II

5 ALKYLHALIDES

Nomenclature. Preparation and reactions of alkyl halides with special reference to nucleophilic substitution and elimination reaction, factors affecting nucleophilic substitution and elimination reactions. Gringnard's Reagent, preparation, structure and synthetic application.

6 CHEMISTRY OF HYDROXYL GROUP

Nomenclature. Preparation, physical properties & reactions of alcohols and phenols. Uses

of hydroxyl compounds. Distinction between Pri. Sec. & Ter. Alcohols.

7 CHEMISTRY OF CARBONYL COMPOUNDS

Nomenclature. Preparation of aldehydes from (i) alcohols (ii) acid chlorides (iii) calcium salts of carboxylic acid (iv) methyl benzene.Preparation of Ketones, Oppenour oxidation, Friedal-Crafts acylation, pinacol rearrangement, hydration of alkynes, oxidative cleavage of carbon carbon double bond.Reactions. Nucleophilic addition reaction, reduction of aldehyde & ketones. Oxidation of aldehydes and ketones, reactions due to α hydrogen atom of aldehydes and ketones, haloform reaction, aldol condensation, cannizaro reaction, Uses of carbonyl compounds.

8 CHEMISTRY OF CARBOXYLIC ACIDS AND THEIR DERIVATIVES

Nomenclature. Preparation, properties and reactions of carboxylic acids and their derivatives like

esters, amides, acid anhydrides.

9 HETEROCYCLIC COMPOUNDS

Nomenclature. Methods of preparation of pyrol and pyridine. Their aromatic character and

comparison wih benzene. Important reactions of pyrrol and pyridine.

Total Hours = 60

Books Recommended:

1 Younas M., Text Book of Organic Chemistry, Ilmi Kutab Khana, Lahore.

2 Rehman, A., Text Book of Organic Chemistry, Carvan Book House, Lahore.

3 March, J., Advanced Organic Chemistry, Wiley, New York.

4 Pine, S.H., Organic Chemistry, McGraw-Hill, New York.

5 Skyes, P., A Guide Book to Mechanism in Organic Chemistry, Longman, London.

6 Solomons, T.W.G., Fundamentals of Organic Chemistry, Wiley New York.

7 Vogel, A.L., A Text Book of Practical Organic Chemistry, Longman, London.

8 Clarke, H.T. and D. Haynes., A hand Book of Organic Analysis, Edward Amold London.

9 Mann, F.G and B.C. Saunders. Practical Organic Chemistry, Longman London.

10 Shiner, R. L., D.Y. Curtin, R.C. Fuson, and T.C. Morrill, The Systematic Identification of Organic Compounds, Wiley New Yor~.

11 Rehman, A., Experimental Organic Chemistry, The Carvan Book House Lahore.

12 Morrison R.T. and RN. Boyd, Organic Chemistry, Allyn and Bacon, London.

13 Advanced Practical Chemistry Part-I & Part-Il Ilmi Kitab Khana by Dr. M. Zafar Iqbal, A. Rehman Ch.

B.Sc. Part-I Paper II

APPLIED CHEMISTRY

SECTION-I

1:- CHROMATOGRAPHY.

Paper Chromatography, Methodology, Rf Value, application to some colored ions, solvent specifications for some separations Thin layer chromatography. Preparation of thin layers, methodology and applications.

2:- SPECTROSCOPY

U.V. and Visible, Beer-Lambert Law. Absorption and transmission of light, instrumentation, methodology and applications to solution to determine -maxum and concentration. Infra Red, Instrumentation, methodology. Identification of functional groups in I.R spectra.

3:- COLLOIDS

Concept of colloids, Macromolecules, Micelles. Concept of colloidal solution, its preparation, purification, properties with reference to Tyndal effect, electrophoresis. Applications of colloids.

4:- ELECTRO CHEMISTRY

Equivalent and molar conductance. Dependence of conductance on solvent and temperature. Kohlrauch's law and its application. Measurement of conductance of strong and weak electrolytes, degree of dissociation. Dependence of degree of dissociation on dilution(Ostwald dilution law) Dissociation constant. Calculation of PH for a typical weak acids. Transport numbers and their determination by moving boundary method and Hittorf's method.

5:- NUCLEAR CHEMISTRY

Types of nuclear radiations. Detection and measurement of radioactivity. Stable and unstable isotopes. Artificial nuclear transformations. Application of radioactive isotpopes nuclear hazards and safety measures G.M counter and cloud chamber. Nuclear fission and fusion

reactions. Brief description of nuclear reactors.

SECTION -II

1:-INTRODUCTION TO MODERN MATERIALS

Inorganic polymers, Silicones, Phosphazenes (Preparation and applications). Organic polymers; phenol formaldehyde, urea formaldehyde, melamine formaldehyde(preparation and uses) Ceramics, Engineering ceramics, ceramic composite, their applications Fiber Glass. Liquid crystals

2:- DYES

Dyes General introduction, cause of color, classification, Manufacture of dyes and Azo Dyes.

3:- INDUSTRIES

Industries of CEMENT, GLASS SUGAR. NITROGEN AND PHOSPHORUS based fertilizers.

4:- METALLURGY

Copper. Silver Chromium.

5:- BIOTECHNOLOGY.

Fermentation as biochemical process, commercial manufacture of absolute alcohol, vinegar.

Total Hours = 60

Books Recommended

1. Marson S.H. & B. Jerome. "Fundamentals of Physical Chemistry". Macruthan Publishing co. inc. New York (also Published by National Book Foundation)
2. Heald C. & A.C.K. smith. Applied Physical Chemistry English Language.
3. Shriver, D.F., P.W. Atkins and C.H. Langord," Inorganic Chemistry". Oxford, 2nd Edition (1984).
4. Sharpe, A.G., "Inorganic Chemistry" Longman,3rd Edition(1992)
5. Younas, M. Organic Spectroscopy, A.H. Publisher, Lahore.
6. Text Book of Physical Chemistry for B.Sc. students by Ah Mohammad and Ghulam Rasool Chudhary, Ameen Publishers, Urdu Bazar Lahore.
7. Text Book of Physical Chemistry for B.Sc. students by G. Nabi, Publishers; Ilmi Kitab Khana~ Urdu Baar, Lahore.
8. Physical Chemistry by W.J. Moore, Longman Scientific and Technical.
9. Principles of Physical Chemistry by Marron and Pruffon, The Macmillan Company.
10. Physical Chemistry by Atkins, Oxford University Press.

11. Roger's Industrial Chemistry, Von Norstand Co. N.Y.

Practicals Organic & Applied Chemistry

Time of Exam: 4 Hours Maximum Marks: 25

Q.No.1	Organic Chemistry practical	=	10
Q.No.2	Applied Chemistry Practical	=	10
Q.No.3	Viva	=	03
Q.No.4	Practical Note Books	=	02

Note: Relevant Books/Note Books etc. not allowed for help.

Paper (V) B.Sc. Part-I Organic Chemistry Practicals

Practical Syllabus

1. Qualitative Organic Analysis:

   Systematic identification of organic compounds containing groups like COOH, OH, NH_2 and C=O

Preparation and Techniques of Purification:

Preparation of simple organic compounds viz., t-butyl chloride, benzoic acid, tribromophenol, purification techniques viz solvent extraction, distillation and recrystallistaion.

Books Recommended

1. Vogel A.I. "A Text Book of Organic Analysis Edward Arnold, London.
2. Mann, F. G. and B.C. Saunders. Practical Orgamc Chemistry Longman London.
3. Clarke, H.T. and D Haynes A Hand book of Organic Analysis Edward Arnold London.

Paper V B.Sc. Part-I Applied Chemistry Practicals

Practical Syllabus

1. Identification of cations by paper chromatography.

   $(Cu^{+2} + Ni^{+2}), (Al^{+3} + Fe^{+3}), (Cd^{+2} + Pb^{+2})$
2. Preparation of Indigo dye.
3. Preparation of urea-formaldehyde.
4. Preparation of Bakelite.
5. Separation of mixture of Phenol and natural products by chromatography.

Book Recommended

1. Riegel's Handbook of Industrial Chemistry. Von Norstand Reeinhold Co. N.Y.

2. Vogel A.I. "A Text Book of Organic Analysis Edward Arnold, London.
3. Mann, F. G. and B.C. Saunders. Practical Organic Chemistry Longman London.

B.Sc. Physical Chemistry Part-II (Written)

Paper III

Section-I

Maximum Marks	= 38	Time of Exam	= 3 Hours
Total Study Hours	= 60	Study Hours	= 30

SECTION-I

1. **ELEMENTARY MATHEMATICS:** (8 Hours)

(a) Idea of equation of straight line with examples of mathematical equations of physical chemistry.

(ii) Limits (continuous and discontinuous) Exponential and Trignometric Functions.

(iii) Binomial expansion with examples from chemistry

(iv) Partial fractions of algebric function.

(v) Concept of differentiation of algebric and trignomatric function

(vi) Concept of exact and partial differential. Formulae of differentiation and integration.

(vii) Basic concept of logarithm

(viii) Elementary treatment of operators and complex number.

2. PHYSICAL STATES OF MATTER: (14 Hours)

(a) GASES: (6 Hours)

(i) Review of Gas and its Laws.

(ii) Collision diameter, collision frequency and mean free path.

(iii) Principle of equipartition of energy

(iv) Non ideal behaviour of real gases. Vanderwaal's equation of state. Critical phenomenon and determination of critical constants. Derivation of critical values of temperature (T_c) pressure (P_c) and Volume (V_c). The Law of corresponding state. Experimental determination of critical temperature.

(b) LIQUIDS. (4 Hours)

- Brief concept of Vapour pressure, surface, tension, viscosity, solution viscosity
- Parachor, and their applications, Refractive Index, Measurement of refractive Index

by Abbe's and pulfrich refractometer. Molar refractions and its applications.

- Molecular polarization, Dipole moment and its determination and applications.

(c) SOLIDS. (4 Hours)

- Crystal lattice, unit cell, symmetry operations and Bravis lattice
- Concept of X-rays diffraction, Bragg's equation and methods of crystal structure analysis. X-rays crystallography of sodium chloride crystal.

3. QUANTUM MECHANICS AND ATOMIC STRUCTURE: (8 Hours)

1. Introduction to wave theory of light. Basic idea of wave, photon and Quanta. Standing waves.
2. Plank's quantum theory. Elementary treatment of compton effect, photoelectric effect
3. Dual nature of matter. Davision and Germer experiment. Wave associated with micro and macroscopic particles.
4. Heisenberg's uncertainity principle and its empirical formulae Postulates of quantum mechanics.
5. Schrodinger wave equation & its various forms.
6. Energy equation for free motion of the particle in one dimensional box. Eigen values and Eigen functions, concept of probability and operators. Normalization of wave function. Probability function. Probability density function and probability curves for 1s, 2s, 2p, 3p orbitals.

Section-II Study Hours = 30

1. CHEMICAL EQUILIBRIUM: (5 Hours)

(a) Introduction: concept of chemical equilibrium & Law of mass action.

(b) Derivation of relationship between Kc, Kp,… Kx and Kn.

(c) Application of Law of Mass action to Homogenous and Hetrogenous equlibria. Le-Chatelier's principle and the effects of variables e.g., temperature, concentration, pressure on equilibrium.

2. CHEMICAL KINETICS: (8 Hours)

1. Elementary treatment of chemical kinetics. Idea of order, molecularity & rate of reaction.
2. Derivation of Kinetic expression for zero order, first order, second order (with same and different concentration) with examples. Determination of rate constant

Determination of Order of reaction (diff. Method) with examples.

3. Arrhenius equation, describing effect of temperature on reaction rate. Arrhenius plots. Measurements of Arrhenius parameters.
4. Bimolecular collision. Collision theory of reactions rates. Causes of its failure with example. unimolecular reaction in gas phase. (Lindemann's Mechanism) Transition state theory of reaction rate.

3. CHEMICAL THERMODYNAMICS: (12 Hours)

(a) Thermodynamic terms, Internal energy, Enthalpy, State & State function Heat capacity Cp and Cv, difference & ratio of Cp and Cv, Atomicity of gases from ratio of Cp & Cv. Temperature dependence of heat capacities of substances. Heat of reaction, effect of temperature on heat of reaction (Kirchoff's equation)

(b) Types of thermodynamic processes. Reversibility & Irreversibility Isothermal reversible expansion of an ideal gas. Adiabatic process for an ideal gas. Spontaneous and non spontaneous process.

(c) Second Law of thermodynamic. The carnot's cycle. Efficiency of a engine. Thermodynamics temperature scale.

(d) Entropy and its calculations for phase transition. Spontaneity and reversibility. Entropy change in Reversible & irreversible processes. Entropy for an ideal gas. Temperature dependence of entropy. Entropy and probability.

(e) Concept of free energy. Derivation of Helmoltz and Gibb's Free energy equations. Standard free energy and its relationship with equilibrium constant. Dependence of free energy on pressure and temp. Clausius-Clapyron equation.

4. **SOLUTIONS:** (5 Hours)

(a) Introduction to concentration units of solutions such as molarity, molality, ppb and ppm.

(b) Theormodynamic derivation of colligative properties, lowering of vapour pressure. Elevation of bioling point. Depression of freezing point. Osmotic pressure and its determination.

(c) Distillation and concept of azeotropic mixture.

B.Sc. Inorganic Chemistry (Written)

Paper IV

Max. Marks : 37 Time of Exam: 3 Hours

Total Study Hours : 60

Section-I Study Hours : 30

1. PERIODIC CLASSIFICATION OF ELEMENTS AND PERIODIC TABLE:

(a) Modern Periodic Table. Periodic properties i.e, atomic radii, ionic radii, ionization potentials, electron affinities and eletronegativities. Redox potential (elementry treatment) Electrochemical series and its applications.

2. CHEMICAL BONDING:

Nature and types chemical bond (Ionic, covalent & coordinate) ionic crystal structure of compounds of the type 1:1 and 1:2. Theories of chemical bonding, quantum mechanical treatment, Valence Bond Theory, Molecular Orbital Theory, (Homo and hetrodiatomic molecules) Interpretation of shapes of inorganic molecules on the basis of valence shell electron pair repulsion theory (upto seven electron pairs, lone pairs and molecules containing double and triple bond), hybridization involving s.p.d. orbitals.
Brief description of Electron gas, valence bond and band theories.

3. ACID-BASE EQUILIBRIUM

Theories of Acids, Base and bases including soft and hard acid base concept. Relative strength of acids. Significance of Pk. Applications of soft and hard acids and bases. Indicators (acid-base, redox). Solubility, solubility product, common ion effect and its application, Co-precipitation, Hydrolysis of salt, selective precipitation, Fractional and co precipitation

4. ZERO GROUP ELEMENT:

Discovery of Inert gases, separation and isolation, chemistry of Xenon Fluorides, reactivity, bonding and structure of Xenon compounds, commercial utilization of Inert gases.

Section-II Study Hours = 30

1. CHEMISTRY OF P-BLOCK ELEMENTS

(a) Boron & Aluminum:

Gradation of the characteristic properties within the group. Electron defficient molecules such as boron hydrides and aluminum hydrides including their structure. Compounds of boron and aluminum, boric acid, borax and alums, their preparation, properties, uses.

(b) Carbon and Silicon:

Gradation of the characteristic properties within the group. Comparison of C & Si, Carbides, different types, silicates and their structures.

(c) Nitrogen & Phosphorus:

Gradation of the characteristic properties within the group. Oxide of nitrogen, hydrazine, hydroxyl amine, phosphine. Ortho, Pyro and Meta phosphoric acid (Preparation and reactions)

(d) Oxygen and Sulphur:

Gradation of the characteristic properties within the group. Role of Sulphur Dioxide in Pollution of air. Thionic acids, Sodium thiosulphate preparation, properties, structure, peroxy acids of sulphur preparation and reaction. Use of Hypo in photography.

(e) Halogens:

Gradation of the characteristic properties within the group. Anomolous behaviour of flourine, Industrial preparation of Flourine. Oxyacids of Halogens. Interhalogens preparation properties and structural aspects. Pseudohalogens.

2. Transition Elements:

Electronic configuration of Transition elements. General characteristic of d-block elements. Warner's theory of co-ordination compounds, nomenclature.

Nature of coordinate bond. Application of valence bond, mlecular orbital and crystal field theories to explain the structure of coordinate compounds, colour and magnetic behaviour of coordination compounds. Introduction of chelates, Isomerism – in coordination compounds.

Recommended Books:

1. Iqbal., M.Z. Text Book of Inorganic Chemistry, Ilmi Kitab Khana, Revised Edition (1998)
2. Chaudhry, G.R.; Text Book of Inorganic Chemistry, New Kitab Markaz, Aminpur Bazar, Faisalabad, Pakistan 2nd Edition 2001.
3. Bhatti, H.N., and B.A. Nasir, Modern Inorganic Chemistry, The Carvan Book House, Lahore Pakistan 1st Edition 2000.
4. Cotton, F. Albert, Geoffery Wilkilson and Paul L. Gaus, Basic Inorganic Chemistry, John Wiley & Sons, Inc., 3rd Edition 1995.
5. Lee, L.D. Concise Inorganic Chemistry, Chapman & Hall, 5th Edition (1996)
6. Jolly, William. L., Modern Inorganic Chemistry, 'McGraw Hill, 2nd Edition

(1991)

7. Philip M., Advance Analytical Chemistry, Mcgraw Hill International Edition, 2000.

Recommended Books:

1. Marson S.H. & B Jerome, Fundamentals of Physical Chemistry, Macruthan Publishing Co., Inc New York (Also published by national Book Foundation)
2. Atkins P.W. & M. J Clugston, "Principles of Physical Chemistry" Pitman Publishing Company (1998)
3. Moore W.J., "Physical Chemistry" 5th Edition Longman Publishers.
4. Akhtar M.N. & Ghulam Nabi, Principles of Physical Chemistry" Carwan Book House, Lahore.

Paper VI Practicals B.Sc Part II

Time of Exam: 4 Hours Marks O

Study Hours : 45

Practical layout

Total Marks: 20

Q.No.1	Inorganic Chemistry Practical	=	10
Q.No.2	Physical Chemistry Practical	=	10
Q.No.3	Viva	=	03
Q.No.4	Practical Note Books	=	02

Note: Relevant books / note books etc. are not allowed in exam for help.

Inorganic Practical Syllabus

1. Qualitative Analysis.
   Analysis of four radicals (cations and anions) from salt mixture.
2. Quantitative Analysis

   a. Determination of total harness of water using EDTA.
   b. Estimation of manganese (II) using EDTA.
   c. Estimation of copper (iodometrically).
   d. Determination of thiosulphate ion (iodometrically).
   e. Determination of ferricyanide using KI solution.
   f. Determination of chloride by Volhard`s and Mohr`s methods.

g. Percentage determination of ferric ions in ferric alum using $KMnO_4$ solution.
h. Estimation of ferrous ions using $K_2Cr_2O_7$ solution.
i. Percentage determination of barium in barium nitrate by gravimetric method.

Note: there will be only one question from qualitative / quantitative analysis from inorganic portion.

List of Practicals of Physical Chemistry

1. Determination of Surface tension and Parachor value by stalagmometer.
2. Determination of percent composition of liquid solutions from surface tension measurement.
3. Determination of viscosity and Rhechor value of liquids from viscosity measurement.
4. Determination of percent composition of liquids solutions viscometrically.
5. Determination of refractive index and molar refractivity be refractometer.
6. Determination of percent composition of liquid solutions by refractive index measurements.
7. Determination of heat of solution by solubility method.
8. A kinetic study of acid hydrolysis of ethyl accetate.
9. Determination of angle of rotation of an optically active substance.
10. Determination of percent composition of an optically active substance in solution.
11. Determination of equilibrium constant $KI + I_2 \leftrightarrow KI_3$

Books Recommended:

1. Levitt B.P. Findlays Practical Physical Chemistry, 9th Ed Langan Group Limited.
2. Das R.C. and be Behaera, "Experimental Physical Chemistry" Tata McGraw Hill Publishing Company Limited.
3. Crocleford H.D. HW Biard F.W. Getzen & JW Nowell" Laboratory Manual of Physical Chemistry 2nd Ed. John Wiley & Sons London.

Paper – V B.Sc. Part-I

Time of Exam: 4 Hours Max. Marks : 25

Study Hours : 45

Practical layout

Total Marks: 20

Q.No.	1.	Physical Chemistry Practical	=	10
	2.	Inorganic Chemistry Practical	=	10
	3.	Viva	=	3
	4.	Practical Note Books	=	2

NOTE: Relevant books / note books etc are not allowed in exam for help.

Practical Syllabus

1. Qualitative Analysis.
   Analysis of four radicals (cations and anions) from salt mixture.
2. Quantitative Analysis.
   a. Determination of total harness of water using EDTA.
   b. Estimation of manganese (II) using EDTA.
   c. Estimation of copper (iodometrically).
   d. Determination of thiosulphate ion (iodometrically).
   e. Determination of ferricyanide using KI solution.
   f. Determination of chloride by Volhard's and Mohr's methods.
   g. Percentage determination of ferric ions in ferric alum using $KMnO_4$ solution.
   h. Estimation of ferrous ions using $K_2Cr_2O_7$ solution.
   i. Percentage determination of barium in barium nitrate by gravimetric method.

   Note: There will be only one question from qualitative/quantitative analysis from inorganic portion.

COMPUTER SCIENCE
PAPER-I (3RD YEAR)
COURSE OUTLINE

Time Allowed : 3 Hours **Max Marks : 70**

Attempt Five Questions Choosing Two From Each Section. Q#1 is compulsory.

Q # 1. Objective Type (10)

Section I (15+15)

Computer Programming Using C++

Recommended Book:

The Wait Group's Object Oriented Programming in C++ 3rd Edition by Robert Lafore.
Let Us C

Unit#1 Introduction

Computer Program Concepts, High Level Languages, Integrated Development Environment, Compiler, Source Program, Object Program. Introduction of flow charts.History of C Language, Advantages Of 'C' Over Other Languages, Different Versions of C

Unit#2 Programming Basics

Structure of C++, Different Steps of C++ programming from writing to execution. Input & Output Functions C++, Preprocessor Directives, Variables And Constants, Arithmetic Operators, Unary Operators, Relational Operators, Logical Operators, Bit Wise Operators, Assignment Operators, Data types in C++, Comments

Unit#3 Decision and Loops

Decisions (If Statement, Switch Statement), Go To Statement, Concept of Loops Break Statement,Continue Statement

Unit#4 Arrays, Structures and Functions

Introduction to array, Single and double dimensional array, Structures (Structure Specification & Definition, Accessing Structure Elements), Use of different Built in function. User Defined Function (Declaration, Calling, Passing Arguments, Returning Values), Function Overloading, Inline Functions.

Unit#5 Introduction to Object Oriented Programming

Advantages Of Object Oriented Approach, Objects,Classes, Inheritance, Reusability, Creating New Data Types , Polymorphism, Overloading.

Unit#6 Dealing with Classes and Objects in C++

Specifying And Using Classes And Objects, Constructors
Objects as Function Argument, Returning Objects from Functions. Operator Overloading (Unary Operators, Binary Operators, Data Conversion, Pitfalls)

Unit #7.Files and Streams

Streams, String I/O, Character I/O, Object I/O, I/O With Multiple Objects
File handling techniques. Types of files, inserting, reading, deleting, modification of records using program

Section II (15+15)

Data Structure And Algorithms

Recommended Book:

Introduction to Data Structure with Application by Paul Trembley Sorenson

Unit#1 Introduction

Data and types of Data, Introduction to Data Structures, Data Structure (Classification, Types, Operation)

Basics of Algorithms, Notation used.,Method for designing of efficient algorithm.

Unit#2 Arrays And Stacks

Arrays (Definition and Examples), Representation of array in Memory., Accessing & Traversing Array. Inserting & Deleting from array, Multi Dimensional Arrays & their Representation in Memory., Stack, Importance of Stack, Array Representation of Stacks., Stack Operations (PUSH and POP operations).Infix, Postfix and Prefix Expressions.

Unit#3 Queues And Linked List

Queue, Representation of Queues, Operation Perform on Queue(Inserting and Removing Nodes). Dequeues, Linked Lists Concept Representation of Linked Lists in Memory.Traversing & Searching a Linked List.Insertion & Deletion in Linked List.

Unit#4 Trees

Tree, Tree Types (simple, Binary, General), Representation of Binary Tree in Memory, Traversing (Pre order, In order, Post order).,Basic Operation (Insertion Deletion).

Unit#5 Sorting & Searching

Bubble Sort, Quick Sort, Insertion Sort, Selection Sorting , Sequential Search , Binary Search

COMPUTER SCIENCE
PAPER-II (4TH YEAR)
COURSE OUTLINE

Time Allowed : 3 Hours **Max Marks : 70**

Attempt Five Questions Choosing Two From Each Section. Q#1 is compulsory.

Q # 1. Objective Type (10)

Section I (15+15)

Computer Programming Using Visual Basic

Recommended Book:

Microsoft Visual Basic Programmer's Guide

Unit#1 Introduction

Visual Programming, Introduction to Visual Basic, Visual Basic Editions, Event-Driven Programming, Elements of VB IDE. SDI and MDI interface, Creating VB application.

Unit#2 Programming Basics

Structure of a VB application, Code writing mechanics, Introduction to variables, declaring variables, Scope of variables, Static variables, Constants, Data types.

Unit#3 Procedures Objects and Control Structures

Introduction to Procedures, Passing Arguments to procedures, Decision structures (If Statement, Select Case), Concept of Loops Break Statement,Continue Statement, Objects, common objects in VB, (command buttons, labels, textboxes,) Controlling objects with their properties, performing actions with methods,

Unit#4 Forms, Menus and Tool bars

Working with MDI forms and child forms, Setting the forms, Creating Menus with Menu Editor, Assigning Access keys and shortcut keys, Creating Submenus, Writing Control for menu control, Creating a toolbar, writing code for tool bar,

Unit#5 VB controls

Control categories. Using check box control, Using the combo box control, Using color dialog box, Using Font dialog box, Using file system controls, Using the data control, Using frame control, Using horizontal and vertical scroll bar

control, Using image control, Using line control, Using list box control, Using option button control, Using picture box control, Using timer control

Unit#6 Data Base Programming
DBMS, Visual Data manager, Entering data into database, Data control, Data bound controls, Data Access Object(DAO), Accessing DAO object, Activex Data Object (ADO), ADO data control, ADO object, Data environment designer, Using Data Environment with DataGrid control, Data Report Designer.

Unit#6 Responding to Mouse and Keyboard Events
Mouse Down event, Mouse Move event, Mouse Up event, Dragging and Dropping, Changing Drag Icon, Responding to Keyboard events, KeyPress event, KeyDown and KeyUp

Unit#7 Error Handling
How to handle errors, Designing an Error Handler, Inline error handling, Centralized Error Handling, Error Handling with Activex Components, Approaches to debugging, Design time Run time and Break mode, Using Debugging windows, Running selected portion of your application.

Section II (15+15)

Data Base Management System

Recommended Book:
Introduction to Data Base system (C.J.DATE)
Microsoft SQL Server programming (SAMS)

Unit#1 Introduction
Data and Information, Data Base, Components of Data Base System, Advantages of Data Base, Data Base Management System, Benefits of DBMS, Types of Data Base, Entity, Keys and its types, Attributes

Unit#2 E-R Model
Relation Ship, .Classification of Relation ship types(unary, binary, ternary, cardinality, optionality, Entity Relationship Diagram, Symbols of E-R diagram.

Unit#3 Data Models and Normalization
Hierarchical, Network, Relational models, RDBMS, Codd's Rules, Normalization, First Second and Third Normal Forms, Boyce Codd Normal Form (BCNF).

Unit#4 Introduction to SQL Server
Introduction to SQL Server, Managing SQL server with Enterprise Manager, Tools, Wizards, Tasks, Database Diagram, Data Maintenance with open table, SQL server profiler, Using Query Analyzer in SQL Server, configuration, color coding and font, Results Pane, Creating Users and logins, Client/Server Architecture

Unit#5 Structured Query Language
SQL, Basic SQL statements, DDL, DML, Creating tables, Alter table, Update and delete record, inserting in tables, Operators in SQL, Data Types in SQL Server, Joining, Functions, Aggregate Functions, Group by clause, Having clause, Distinct clause, Order by clause, Unions, Mathematical Functions, Date Functions, String Functions.

Unit#6 Advanced SQL Statements And Procedures
Why use procedures, System Stored Procedures, Using CAST and CONVERT, The sysmessages, Defining your Own Messages, The CASE expression, Granting Denying and Revoking Permissions to Users.

UNIVERSITY OF GUJRAT

Course Outlines (Practical)

B.A / B.Sc. (Part-I)

Time Allowed: 2.0 Hrs **Total Marks:** 30

Courses of Studies.

a. Object Oriented Programming (C++ Language)
b. Visual Basic 6.0(As a front-end form/menu designing)

Division Of Marks

i.	Part-1 (One Program from C++ Language)	10 Marks
ii.	Part-2 (One Question from Data Structures)	10 Marks
iii.	Viva Voce + Note Book	10 Marks

Part-1 (Object Oriented Programming using C++)

Question # 1:

Two questions are given; Answer the one of the following.

Part-II (Data Structure)

Question # 2:

Two questions are given; Answer the one of the following.

Question # 3:

Viva Voce and Note Book

UNIVERSITY OF GUJRAT

Computer Science (Practical)

B.A / B.Sc. (Part-II)

Time Allowed: 2.0 Hrs **Total Marks:** 30

Courses of Studies.

b. SQL-Server 2000 (As a back-end Database)
b. Visual Basic 6.0(As a front-end form/menu designing)

Division Of Marks

i.	Part-1 (One Program from SQL-Server 2000)	10 Marks
ii.	Part-2 (One program from Visual Basic 6.0)	10 Marks
iii.	Mini Project with Documentation, Presentation and Viva Voce	10 Marks

Part-1 (SQL-Server 2000)

Question # 1:

Two questions are given; Answer the one of the following.

Part-II (Visual basic 6.0)

Question # 2:

Two questions are given; Answer the one of the following.

Mini Project with Documentation, Presentation and Viva Voce

Question # 3:

Mini Project

A group of students will design a mini project using SQL-Server 2000 and a Database and Visual Basic 6.0/VB.Net as front-end application. Student will keep in mind the following steps,

1. A group of students must be 1 to 4 students.
2. Mini project must be a complete application covering, data entry, editing/updating, deletion on designed forms using Visual Basic 6.0/VB.Net, and with variety of different reports using VB environment or Crystal Reports.
3. Students will create a setup of the designed application on a CD.

4. Complete documentation of the project covering DFD, Database Structure, Table Structres, Forms layouts and details of working of the application. This documentation must be in a manual form.

Presentation

1. A group of Students (Not more than 4) will present their project. Project must be free of errors and must able to run on Windows-XP workstation independently.
2. Students submit a 2 sets of complete documentation with CD to the (Project Examiners), one set for the Examiner and 2nd for the Controller of Examiners of the University.

Viva Voce

1. Students will be asked some short questions from their submitted project and as well as from the courses of studies.

Compiled By:

Khadam Hussain (MCS, B.Ed)

Lecturer Govt. Degree College Boys Kharian City.

Phone No :0333-8500992, 053-9240113

22-08-2005

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ECONOMICS

SCHEME OF STUDIES:

PAPER-I (3RD YEAR)

i)	Micro Economics	60
ii)	Basic Mathematics & Statistics	40

PAPER-II (4th YEAR)

i)	Macro Economics	60
ii)	Economic Development of Pakistan	40

B.A. LEVEL

PAPER-I (Part 1 3rd year)

(QUANTITATIVE METHODS FOR ECONOMICS AND ECONOMIC THEORY)

A compulsory question comprising of parts with short answers from the whole syllabi

(MICRO ECONOMICS) Total marks = 60

Section-I (2 questions out of 4)

1. INTRODUCTION

   Nature, scope and importance of economics, the concepts of Scarcity, Choice and Production Possibility Frontier.

   Economic analysis at micro & macro level in an economy

2. THEORY OF CONSUMER BEHAVOUR

   Utility & Indifference curve approaches to the consumer behaviour. Consumer equilibrium through both approaches. Marginal rate of substitution, Price effect, Income and Substitution effects, Normal, Inferior and Giffen Goods. Graphical derivation of demand curve using Slutsky and Hicks approaches.

3. ELEMENTARY THEORY OF DEMAND AND SUPPLY.

Demand - supply. Laws of Demand and Supply.
Price determination in the market. Elasticity of Demand and Supply. Forms of Elasticity and its measurement.

4. THEORY OF PRODUCTION:

A. Production Function:

Isoquants, Marginal rate of technical substitution iso-cost curves, Law of Variable Proportion. Optimal Level of Production.

B. Cost Function:

Total Cost, Average Cost, and Marginal Cost Curves.
Short & Long Run Costs. Derivation of Short Period and Long period Costs Curves

C. Revenue Function:

Total Revenue, Average Revenue, & Marginal Revenue Curves, in Perfect and Imperfect Competition.
Relationship with elasticity of demand.

5. MARKET STRUCTURE.

Types of markets , & Equilibrium of a Firm (Short-Run & Long Run) , under Perfect Competition , Monopoly, Monopolistic Competition, and Oligopoly . Problem of price discrimination.
Collusive and Non-collusive models of Oligopoly.(Cornot, Kinked demand curve, Price Leadership & Cartel models).

6. Theory of Income Distribution and Pricing of the Factors of Production
Marginal Productivity' Theory, The demand curve for one factor and many factors, and Factor pricing under Perfect Competition.

Basic Text Books:

1. Richard G. Lipsey, (1983)An Introduction to Positive Economics. The English LanguagQBook Society, Latest edition, 1983.
2. Paul A. Samuelson & Nordhaus, Economics., Mc.Graw Hill, Inc. 1995.
3. R.H. Leftwich, The price system and Resource Allocation. The Dryden Press, Hinsdale, Illinois. 1976.
4. Abdul Haleem Khawaja, Economic Theory, (KHAWJA & KHAWJA PUBLISHING HOUSE, ISLAMABAD.

Additional Readings

1. Wonnacott & Wonnactoc Economics.
2. C.E. Ferguson & J.P. Gould, Microeconomic Theory.

QUANTITATIVE METHODS FOR ECONOMICS AND ECONOMIC THEORY)

PART-B BASIC MATHEMATICS AND STATISTICS Marks =40

Section-II (1 questions out of 2)

1. Equations:
   Equations and identities. Simple and simultaneous
   quations. lmportance of unknowns, constants, parameters, coefficients and powers as symbols of equations. Linear
   and non-linear equations,& their solutions.

2. Derivatives and Application:
   Concept of limits and continuity of functions. Method of finding the limit of a function. Theorems of limits.

3. Meaning of derivatives. The rules of derivative, its application in Economics. Concepts of maxima, minima, & point of inflection. Differential and Partial Derivatives and Constrained Optimization.

Section-III (1 questions out of 2)

1. Central Tendencies & Dispersion:
   Calculation of average mean, mode, median, quartiles, deciles, percentiles, range, mean deviation and standard deviation and Variance.

2. Index Numbers:
   Need for index numbers, method of constructing index numbers, simple index numbers, weighted index numbers, Laspeare index paasche index, Fisher index and marshal - Edgeworth index.

Basic Text Books:

1. A.C. Chiang, Fundamental Methods of Mathematical Economics. Mc.Graw Hill Book Company 1985.
2. K. Holden & A.W. Pearson, Introductory Mathematics for Economists, Macmillan Press, London.1983.
3. Mohammad Riaz Chaudhry, Polymer Elementary Statistics, Polymer Publications
4. S.M. Ahsan Hussain, Mathematics for the Students of Economics, Kifayat Academy 2000
5. S.M. Ahsan Hussain, Tools of Statistical Analysis, Kifayat Academy 2000

PAPER-II (4th Year)

MACRO ECONOMICS & ECONOMIC DEVELOPMENT OF PAKISTAN.

One compulsory question of 20 marks

Section-I (2 questions out of 4)

(MACRO **ECONOMICS)**

1. National Income & its Measurement:

   Introduction & Definition of Macro Economics, variables and their mutual relationship. Concepts of national income GDP, GNP, NNP, Disposable income, Three methods of computing national income. Real Vs Nominal Income. GNP Deflator.

2. Determinants of National Income;

   Classical and Keynesian. Consumption function , and Consumption theories

   i. Absolute income hypotheses
   ii. The relative income hypotheses
   iii. Permanent income hypotheses
   iv. Life cycle income hypotheses

   Saving functions and investment functions. Marginal efficiency of capital.

3. Determination of National Income and Employment:

   Equilibrium level of national income, saving and investment, identity, inflationary and deflationary gaps. The IS-LM model. Thederivation of IS – LM curves and equations. General equilibrium level of national income and rate of interest. Mathematical solution of IS –LM model(derivation of aggregate demand curve). Classical and Keynesian theory of employment.

4. National Income Fluctuations and Inflation

   Concepts of Multiplier and Accelerator principle and their interactive role in business fluctuations. Features and remedies for business cycles. Meaning and measurement of inflation. Demand Pull inflation , Cost Push inflation.

5. Monetary Policy & National Income

   Monetary policy its objectives and tools.
   Impact of Monetary policy upon C, I, & G.

6. Fiscal Policy and National Income

   Fiscal policy; meaning and its objective and tools. Public expenditure, taxes, national debt and income determination. Deficit budget and its role in

inflation.

7. Foreign Trade and National Income;

Role of foreign trade in effecting national income. Classical and modern theories of comparative advantages. Balance of Trade. Balance of Payments. Terms of Trade and adversity. Foreign exchange determination. Causes and remedies of deficit in Balance of Payments Role of I.M.F & World Bank.

Basic Text Books;

1. Edward Shapiro, Macro Economic Analysis. Harcourt Brace Jovanovich, Inc.New
2. York,1982
3. R.Dornbush & S. Fischer, "Macroeconomics,". Sixth Edition, Mc.Graw Hill lnc.1994.
4. Richard T. Froyen," Macroeconomics, Theories and Policies. Fifth Edition. Macmillan Publishing Company, 1990.
5. Mankiv, N. Gregory., Macrceconomics, 2nd Edition Worth Publisher.
6. Abel & Bernanke, Macroeconomics Latest Edition.
7. Muhammad Hussain Ch., Economics Theory, Carvan Book House, Lahore.

PAPER-II

MACRO ECONOMICS & DEVELOPMENT OF PAKISTAN.

Section-II (2 questions out of 4)

1. Concept of Economic Development and its measurement;

Characteristics of a developed country versus those of a developing country. The concept of economic development and methods to measure it.

2. Factors of Economic Development;

Role of natural, human and capital resources in promoting economic development along with role of infrastructure with special reference to economy of Pakistan. Role of food, health, education and training in generating accelerated economic development.

3. Economic Planning in theory and Practices;
Imperfections of market. Need for economic planning and its objectives. Types of economic planning. Key decisions
in formulating a five year plan. Historical perspective of various Five Years Plans and Review of the latest five year plan in detail.

4. Role of Strategic Sectors:
Importance and problems of agriculture, industry, human-capital transport and communications in the economy of Pakistan, solution and government policies in these spheres.

5. Banking as a sector in Pakistan:
Role of commercial and central banks in mobilizing and utilizing capital resources in Pakistan. Growth of banking as an industry, nationalization and privatization of banks in the country. Role of money and monetary policy in expanding economic growth in Pakistan. Inflation: causes and remedies. Experience of interest free banking in the country.

6. External Trade as an engine of Growth:
Role of foreign trade and foreign aid in economic growth of Pakistan. Export-promotion measures and import- substitution policy of the government and their results. Deteriorating terms of trade. Role of foreign remittances and foreign aid in Economic Development of Pakistan. ½

7. Fiscal Svstem in Pakistan:
Sources of public revenues for the federal and provincial government and head of expenditure. Budget formulation and fiscal policy in various years.

Basic Text Books:

1. Kh. Amjad Saeed,(2000), "The Economy of Pakistan". S.A.Salman Publications.
2. Vaqar Ahmad & Rashid Amjad, The Management of Pakistan's Economy. Oxford University Press, Karachi.
3. Different Economic Surveys, Published by Government of Pakistan. (Latest).
4. S. Akbar Zaidi, Issues of Pakistan Economy, Oxford University, Preis.

RECOMMENDATIONS

1. Course on Economics at graduation level has never been goal - oriented. It always missed its link with realities of life. Students failed to develop sense for solving problems of manufacturing and commercial firms. Most of the performance has been founded on cram - work. There is clarion call for bringing about radical change in the format of the courses and course content.
2. Students at this stage of learning may be asked to prepare and maintain a practical note book, which should entitle them for 20 marks.
3. Students at this level of education without exception, should be taken around the industrial units, commercial concerns, manufacturing plants etc to virtually calculate costs and resource and develop various relevant course in their practical note books.
4. Topics involving a great deal of history of economic thought like theories of interest profit and employment etc. may be dropped oft the list and may be supplanted by current economic issues at national and international level.
5. A model book for each course may be developed by the UGC for setting pace for authors/teachers to bring out their own books.
6. Some ideal help book for practice at home may originally be devised or edited by the UGC for avoiding need on the part of the students to resort to cheap books of low standard for cramming or cheating papers.
7. As observed that an over whelming majority of graduate intend to give up pursuing further education find themselves being left on the lurch to apply their gained knowledge in practical life, hence need to overhaul course contents to suit to the requirements with an intent to make them self sufficient.

9. Repeated refresher course for in service teachers of Economics is arranged for their exposure to over growing world of economic realities.
10. About 20% weightage be assigned to internal assessment of students done through at least 4 home so as to make them devote more towards studies.
11. One compulsory question of 20 marks worth of objective type may be added to each paper as the same has already been executed at intermediate level.

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Education

SCHEME OF STUDIES FOR 3RD PART (1) 2005

(Division of questions and marks)

Section	Questions	Marks
I	I	20
II	I	20
III	II	40
Compulsory	I	20

SECTION – I

1.1Education, its concept, Scope and role:

Dictionary meaning, Representative definitions education, John Dewy's definition of education, Education as a subject, Scope of education, Theories of education (Primitive, Modern, Islamic),Factors of process of education (Objectives, Curriculum, Learner, Teacher, Teaching method, Learning, Evaluation),Role of education in society (Ideological, Social, Economic, Political).

1.1 Curriculum:

Concept of curriculum (Modern and Islamic), Scope of Curriculum, Significance of curriculum, Foundation of curriculum, Curriculum development process (Objectives, Selection and organization of content, Teaching methodology, Evaluation), Curriculum Change (Factors and Forces)

SECTION – II

2.1Philosophy of Education:

Philosophy, Meaning, Philosophy of education (Concept, Scope, Idealism, Realism,

Progressivism, Reconstructionism, Islamic philosophy of education.

2.2Muslim philosophers:

Imam Ghazali, Ibn-e-Khaldoom, Allama Muhammad Iqbal, Molama Abu-al-Ala Moudoodi.

SECTION – III

3.1History of education in the sub continent:

Characteristics of Muslim and British education systems

3.2Educational evolution in Pakistan;

Objectives and development of education (Elementary, Secondary, Tertiary, Professional, Technical and Science education) with special reference to Educational

conference 1947, Commission's report on national education 1959,The education policy 1972 to 1980, national education policy 1979, Education policy 1998 to 2010.

3.3New trends in education:

Computer in education, Population education, Enviromental education, Educational

Technology, Educational sector reform,

Education

SCHEME OF STUDIES FOR 4TH YEAR PART II 2005

(Division of questions and marks)

Section	Questions	Marks
I	II	40
II	I	20
III	I	20
Compulsory	I	20

SECTION – I

1- Educational Psychology:

1.1 - Psychology, Educational Psychology (Meaning Scope &Importance)

1.2 - Learning concept, Factors affecting learning, Methods \ Types of learning.(Learning by Trial &Error, Insight, Modeling ,Conditioning) and their application in teaching and learning.

1.3 -Transfer of Learning, Modes \ types, Theories of transfer of learning, Significance.

1.4 - Motivation, Concepts ,Types and its functions in learning. Teacher role in increasing students' motivation

1.5 - Intelligence , Concept, Factors influencing intelligence, Theories, Measurement of intelligence and its importance in Education.

SECTION – II

2 - **Educational Administration and Supervision**:

2.1 - Administration meaning ,Islamic concept, Elements, Process of administration (Objectives , Planning, Organizing, Communication, Implementation, Control, Stimulation, Coordination, Budgeting, Appraisal) Principles (Islamic and general), Types, Significance.Characteristics of Administrator. 2.2 Supervision , Concept, Educational Supervision, Difference between Administration and Supervision, Need for Supervision, Principles, Types(Autocratic, Authoritative, Inspectional , Opportunistic, Creative, Democratic, Cooperative, Laissez fair)Characteristics of Supervisor .

2.2.1- Organizational structure of Education in Pakistan, Federal, Provincial (Punjab) ,District level.

SECTION – III

3 - Educational Measurement and Evaluation

3.1 - Concept of Measurement and Evaluation, Difference between Measurement and Evaluation, Types , Purposes of Measurement and Evaluation, Types of Test , (Merits and Demerits), Qualities of good test.

3.2- Research in Education:

Concept of Research, Educational Research, Types of Research(Historical, Descriptive and Experimental) Significance of Research in Education .

کتب برائے مطالعہ ایجوکیشن بی اے سالِ اول و دوم
یونیورسٹی آف گجرات

۱۔ علم التعلیم بی اے حصہ اول ۔ ایس ایم شاھد
۲۔ علم التعلیم بی اے حصہ دوم ۔ ایس ایم شاھد
۳۔ علم التعلیم بی اے حصہ اول ۔ مرزا سخی محمد
۴۔ علم التعلیم بی اے حصہ دوم ۔ مرزا سخی محمد
۵۔ علم التعلیم بی اے حصہ اول ۔ عقیلہ ظہور
۶۔ علم التعلیم بی اے حصہ دوم ۔ عقیلہ ظہور
۷۔ علمی اساسیات علم التعلیم بی اے حصہ اول ۔ مقبول احمد
۸۔ علمی اساسیات علم التعلیم بی اے حصہ دوم ۔ مقبول احمد

یہ تمام کتابیں پنجاب یونیورسٹی اساتذہ کے زیرِ مطالعہ ہیں

۹۔ تعلیمی جائزہ و پیمائش ایس ایم شاھد
۱۰۔ تعلیمی نفسیات جائزہ اور رھنمائی ایس ایم شاھد
۱۱۔ ایجوکیشنل ریسرچ ایس ایم شاھد
۱۲۔ تعلیمی انتظام و نگرانی ایس ایم شاھد
۱۳۔ ایجوکیشنل سائیکالوجی (محرک) ایس ایم شاھد
۱۴۔ ایجوکیشنل ٹیکنالوجی ایس ایم شاھد
۱۵۔ E.S.R Govt Document

یہ تمام کتابیں مختلف موضوعات کیلئے زیرِ مطالعہ ہیں

English Compulsory (B.Sc.)

Max. marks : 50

Time 2 hours

PAPER-I (3RD YEAR)

Syllabus & Course of Reading:

A selection of English Prose.

Complied and edited by: Nosheen Khan, G.S. Qureshi

Topics Included:

1. The Damned Human Race (By Mark Twain)
2. The last lesson (By Alphonse Daudet)
3. Bromides and Sulphites (By Gelet Burgess)
4. How to Live to be 200 (by Stephen Leacock)
5. The Place of Science in a Liberal Education (by Bertrand Russel)
6. On a Common Cold (by Osbert Sitwell)
7. The secret Life of Walter Mitty (by james Thurber)
8. Emotional Meanings (by Robert H. Thousless)
9. Where Do bright Ideas Come From? (by Lancelot Whyte)
10. The Open Window

Division of Marks

Part-I (Text)

1.	**A selection of English Prose**	**20**
	Three separate short questions of equal weightage	
	(An answer should be limited to 200 words)	

Part-II (Grammar and Composition)		**30**
2.	Comprehension with Precise Writing	15
3.	Report writing	10
4.	Use of Preposition	5

PAPER-II (4th YEAR)

Max. marks : 50

Time 2 hours

Syllabus & Course of Reading:

A selection of English Prose.

Complied and edited by: Nosheen Khan, G.S. Qureshi

Topics Included:

1. Right and Wrong (by C.S. Lewis)
2. End of The Road (by Muhammad Asad)
3. How the Poor Die (by George Orwell)
4. The Lost Childhood (by Graham Greene)
5. The Gray Beginning (by Rachel L. Carson)
6. Nature of Science (by Ralph Ross & Ernest Van Den Hang)
7. August 2026, There will Come Soft Rains (by Ray Bradbury)
8. In May Day (by Russell Baker)
9. The Marval of an Insect (by Alan Devoe)
10. TV Addiction (By Marie Winn)

Division of Marks

Part-I (Text)		**20**
	A selection of English Prose	
	Two questions carrying 10 marks each.	
	(The answer should not exceed 250 words)	
Part-II (Grammar and Composition)		**30**
2.	Essay (one out of five topics) (150 to 200 words)	15
3.	Translation of continuous passage from Urdu to English	10
4.	Correction of errors (5 out of 7)	5

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English Compulsory (B.A.)

Max. Marks: 100

PAPER-I (For 3rd Year)

1) SYLLABUS AND COURSE OF READING

1. A Selection of short stories and One-Act-Plays
2. New Anthology of English Verse
   (Edited by Kaneez Aslam, Shoaib Bin Rassan)

2) Division Of Marks

	Part-I (Text)	**60 Marks**
1.	Reference to the context from Poetry and Plays 3 out of5	5+5+5=15
2.	Short Stories (In two parts from different stories)	7 ½ +7 ½ = 15
3.	Plays (In two parts from different plays)	7 ½ +7 ½ = 15
4.	Poetry (In two parts from different poems)	7 ½ +7 ½ = 15

Part-II (Grammar & Composition)		**Marks: 40**
I.	Idioms and phrasal Verbs	10
2	Direct and indirect narration	10
3.	Letter and Application.	10
4.	Translation of a continuous passage from Urdu into English	10

PAPER-II (For 4th Year)

Max Marks 100

1- SYLLABUS AND COURSE OF READING:

II- A selection of Modern English Essays
(Compiled and Edited by Prof Sajjad Sheikh)

III- The Old Man and the Sea by Ernest Hemingway

2- **Division Of Marks:**

3- Part-I (Text) 40 marks

1. A Selection of Modern Essays (In two parts from different essays) 10+10=20

2. The Old Man and the Sea (Two critical questions) 10+10=20

Part 2(Grammar & Composition) 60 marks

3. Essay (One out of five topics) with Out line 5+20=25
(about 300 – 400 words) (one argumentative, one reflective,
one descriptive, one on current affairs, one on scientific topic/narrative)

4. Comprehension and Precis writing 25

Precis writing	15	(the answer should not exceed 50 words)
Title	2	
Comprehension	8	(4 marks for one creative/original question)
		(2+2 marks for comprehension questions)

5. Correction of errors.(any 10 out of 13) 10

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ENGLISH LITERATURE

PAPER-I (For 3rd Year)

Syllabus and course of reading **Total Marks: 100**

1.	**A Selection of Short Stories.**	**Derek Hudson**	**(40)**
	a) The Kite	Somerset Maugham	
	b) The little Willow	Frances Towers	
	c) The Voice	V.S. Pritchett	
	d) The Women who had Imagination	H.E. Bates	
	e) Maria	Elizabeth Gowen	
	f) The Basement Room	Graham Greene	
	g) Local Boy makes Good	John Moore	
	h) On Guard	Evelyn Waugh	
	i) A Dream of Winter	Rosamond Lehman	
	j) The Duchess and the Jeweller	Virginia Woolf	
2.	**Selected Short Plays**	**Prof. Ghulam Sarwar Qureshi**	
		Dr. Nousheen Khan	**(40)**
	a) Riders to the Sea	J.M Synge	
	b) Time's Visitors	F.Sladien Smith	
	c) A Parting	Gordon Bottomely	
	d) The End of the Beginning	Sea 0' Casey	
	e) An Old Friend	Edmund See	
3.	**Animal Farm**	**George Orwell**	**(20)**

PAPER-II (For 4th Year)

Syllabus and Course of Reading **Total Marks (100)**

Time allowed 3 hours

1. Reference to the context(4 out of 6 extracts) (20)

2. William Shakespear Macbeth (20)

3. Glass Mcanagerie Jennesse William (20)

4. Poetry (40)

(two questions carrying 20 marks each)

I. John Milton

a) On his blindness

b) Paradise lost book 1 (lines 1-26)

c) Paradise lost book 1 (lines 105-124)

d) Paradise lost book Ix (lines 896-916)

II. Words Worth

a) To butterfly

b) The sun has long been set

c) Lines composed a few miles above Tintem Abbey

d) The reverie of poor Susan

e) Resolution and independence

f) Sonnet: Composed upon Westminster Abbey Sep,3,1802

g) Sonnet: London 1802

h) Ode: Intimations of immortality from

i) Recollection of early childhood

III. John Keats

a) On the grasshopper and cricket

b) Ode: Bards of passion and of Mirtn

c) Ode: To Autum

d) Sonnet: To Sleep

e) Sonnet: The Human Seasons

f) Sonnet: To Fancy

g) Meg Merrilies h) Song: in a drear-nighted December

IV. Browning

a) Meeting at Night : Parting at Morning

b) Incident of the French Camp

c) Prospice; Childe Ronald to the Dark Tower Came

d) My last Duchess

V. Robert Frost

a) Neither Out Far nor in Deep

b) Nothing Gold can Stay; Bereft

c) The Oven Bird; free at my Window

d) The Trial by Existence

e) The Span of Life f) Acquainted with the Night

g) Fire and Ice h) The Road Not Taken

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FINE ARTS

Part –I (3rd Year) Max Marks: 100

Paper-I Theory Marks:40

SECTION (A)

Elements of Art

- **a)** Forming Elements
- **b)** Aesthetic Elements

Western Art

- Renaissance: Giotto, Masaccio, Donatello, Leonardo, Michelangelo.
- Baroque: Rembrandt, Rubens.
- Neo-Classicism: David, Ingres.
- Romanticism: Delacroix.
- Realism: Corot, Millet, Courbet.
- Impressionism: Manet, Monet, Pissaro.

SECTION (B)

Indo-Pak:

- **a) Indus Valley Civilization**
  - Architecture, Seals, pottery, Sculpture, Jewellery, Toys.
- **b) Budhist Art**
  - Ajanta paintings (Secular & Religious)
  - Gandhara sculpture
- **c) Mughal School of Art**
  - Akbar's school of book illustration
  - Mughal art's technique and material

- Mughal art's characteristics
- Flora & Fona
- Portraiture
- Landscape
- Foreign influences on Mughal art
- Reasons of decline of Mughal art
- Border making

d) Rajput Art

- Bundi school
- Jaipur school
- Marwar school
- Mewar school
- Shekhawati school
- Kishangarh school
- Kotah school

e) Pahari Art

- Basohli style
- Kangra style
- Guler style
- Tira Sujanpur style

SECTION (C)

Notes on different topics from Section A & B

Paper-II (Practical) Marks:20

Still Life or Nature

2 or 3 still life objects to be painted in oils

OR

Fruits, Vegetables, flowers, Plants,(in pots)
To be painted in oils (on paper)

Paper-III (Practical) Marks:20

3-D study in Clay or Naqashi rendering
On 8''*10'' sized paper or a quarter sheet of paper

- 3-D study (sculpture) in clay can be of animals(e.g Snake, Donkey, Mouse etc). Geometrical shapes (Houses), Still life objects such as Tree log, Flowers, any vegetable. The study should be well observed and proportionate. An approximate size can be mentioned. Students can be allowed to paint it in order to make it real but its optional.
- Naqashi patterns of borders, tile designs or jhari patterncan also be asked. Designs can be floral or geometrical. Mediums of painted naqashi are poster colours or oil colours only. For shading in a pattern Opaque water colours can also be allowed.
- In " Naqashi Rendered Patterns" lead pencil is to be the medium.
  Naqashi patterns should be accurate and colours should be the same.

Display of year's work Marks: 20

SUBJECT	QTY
1. Drawing (Still life or Nature)	10
2. Patterns (Naqqashi)	5
3. Still life painting (in oils)	2

4. Landscape in oils 2
5. Naqqashi (Painted) 4
6. 3-D studies 2
7. Traditional Crafts 4

(e.g. Printing, Architectural, Ornamentation, Traditional toys, Baskets, Pottery, Ceramics, Local crafts, Kite making etc.)

Part –II (4th Year) Max Marks: 100

Paper-I Theory Marks: 40

SECTION (A)

Islamic Art

- Ummayads
- Abbasida
- Mangols
- Timurids
- Safavids

Detail: Architectural Ornamentation, Book Illustration, Tiles, Pottery, Characteristics of the periods.

SECTION (B)

Pakistani Art & Craft

a) Pakistani Art

- Abdul Rehman Chughtai
- Ustad Allah Bakhsh
- Sadequain
- Shakir Ali
- Khalid Iqbal
- Haji Mohammad Sharif
- Anna Molka Ahmad

Calligraphists

- Abdul Majeed (Perveen Raqam)
- Taj-ud-din (Zareen Raqam)
- Mohd Sadeeq (Almas Raqam)
- Hafiz Mohd yousaf Sadeeqi

b) Pakistani Architecture

1) Before Mughlas

- Multan tombs
  - Tomb of Yousaf Gardezi
  - Tomb of Baha-ud-din Zakria
  - Tomb of Shah Shams Sabzvari
  - Tomb of Shah Rukh-e-Alam
- Sindh Architecture
  - Makli graveyard

2) Mughal Architecutre

- Lahore Fort
- Badshahi Mosque
- Shalamar Gardens
- Tomb of Jahangir
- Masjid Wazir Khan
- Jamia Masjid Thatha

- Masjid Mahabat Khan

3) Pkistani crafts

- A note on prominent Pakistani Crafts.

SECTION (C)

Notes on different topics from Section A & B

Paper-II (Practical) Marks:20

Life Drawing in pencil

Paper-III (Practical) Marks:20

Composition in Various Media

Composition on fantasy subjects such as expectations, dream. Expressive subjects such as sorrow, hope, prayer, depression, loss, unjustification, happiness, freedom etc.

Abstract depiction of different subjects as crowded place, sounds, illusions etc.

Medium: Oils or Mix media on paper.

Display of Year's work Marks:20

SUBJECT	QTY
1. Drawing (20"x30")	
a. Figure Drawing (pencil)	10
b. Miniature Drawing (Persian & Mughal techniques)	3
c. Calligraphy (Nurch, Sulce)	4
2. 3-D studies	2
3. Traditional Crafts (eg. Khaddi, Weaving, Ceramics, Glass art, Wood carving)	4

GEOGRAPHY

SCHEME OF STUDIES

Distribution of Marks	**=**	**200**
Paper-I(Physical Geography)	=	70
Paper-II(Human & Regional Geography)	=	70
Practical(Map Work & Practical)	=	60

Paper-I		**Paper-II**	
Paper	15	Paper	10
Report	05	Survey	12
Record Work	05	Record Work	05
Viva Voce	05	Viva Voce	03

PAPER-I (3RD YEAR)

(Part 1)

PHYSICAL GEOGRAPHY:

1. The Earth & Its Origin:

   The Universe, the solar system and the earth, Earth's origin, shape and size, rotation and revolution, composition and structure, distribution of land and water. Introduction to geological Time scale.

2. Atmosphere:

   Composition and structure of atmosphere, atmospheric temperature and pressure, winds and global circulation, airmasses and fronts(Classification, distribution & associated weather), cyclones and weather disturbances, Hydrological cycle, Atmospheric moisture and precipitation, climatic classification: koppen's classification with special reference to the following types Af, Am, Bsh, Csa and Df, Atmospheric pollution.

3. Lithosphere:

   Internal structure of the earth, rock-origin, formation and types(igneous, sedimentary and metamorphic,) plate tectonics, mountain building, geomorphic processes-internal and external, earthquakes, volcanic activity, weathering and Mass Wasting, Erosion and Deposition, Cycle of Erosion, landforms by surface water, ground water, winds and glaciers.

4. Hydrosphere:

   Configuration of ocean floor, ocean deposits, composition, temperature and salinity of ocean water, movements of the ocean water, waves, currents and tides.

5. Biosphere

   Origin and Evolution of life on earth(with reference to geological time scale) Formation and types of soils, Forest Biome(major forest type)

Books Recommended

1. Strahlar. A.N. Strahlar .A.H.(2000) Physical Environment, New York, John Wiley.

2. Christopherson R. W.(2000) Geo-Systems. USA, Prentice Hall, Inc.

3. Well & Well and N(1998) Atmosphere & Oceans, London, Longman.

4. Monkhouse. F.J.(1996) Principles of Physical Geography, London. Hodder&Stoughton.

5. Rathor. A. Hamid (1996)Tabhi Geographia, Islamabad, Muqtadra Qaumi Zaban

6. De Bilj.H.J. & mullar. P.O. (1996) Physical Geography of the global environment. USA. John Wiley & sons Inc.

7. Taylor J. (1993)Integral Physical Geography. London, Longman.

8. Moliveen.J.F.R. (1991) Fundamentals of Weather and Climate. London. Chapman & Hall.

9. Small. R.J. (1989)Geomorphology and Hydrology .London. Longman.

10. Thompson.R.D.(1986) Process in Physical Geography, London. Longman

11. Miller.E.W. (1985) Physical Geography. Columbus. Charles E. Merril.

12. King.CAM (1980) Physical Geography. Oxford Basil Blackwell.

PAPER-II (4th YEAR)

HUMAN & REGIONAL GEOGRAPHY

Part-I

Human Geography:

(a) Man-environment Interaction:

Themes of Environment Determinism, Possiblism & Perception.

(b) Population:

Growth & composition(age and sex structure), population change, natural increase & migration and distribution.

(c) Settlements:

Location, forms and function of urban & rural settlements, Central Place Theory.

(d) Economic activity:

Location characteristics of Primary, Secondary, Tertiary, Quaternary and Quinary activities.

(e) Environmental Problems:

Ecosystem and environmental degradation.

Part-II

Regional Geography

(a) Regional Concept.

(b) Study of Pakistan with special emphasis on resource base (Physical, Human and Economic) Transport, Trade and International Relations.

Books Recommended

1. De Bilj H.J.and Muller. (2000) Geography Realms Regions and Concepts.
2. De Bilj H.J.(2000) Human Geography Culture, Society and Space.
3. Kuby.M. Human Geography in action
4. Khan .F.K. An Introduction to Economic Geography. Saleem Publishing house Karachi.
5. Israr-ud-Din Studies in Pakistan Geography. University of Peshawar. NWFP.
6. Khan .F.K. An Economic Geography of Pakistan. Oxford University Press.
7. Rusenteinone. An Introduction to Human Geography.
8. Home.B. The Integrated Human Geography. London. Longman.
9. Fisher J. Geography and Development. A world regional approach.
10. Witherick.M. Population Geography
11. Barrett.H. Population Geography. London. Longman.
12. Kureshy.K.U. Geography of Pakistan.

MAP WORK & PRACTICAL GEOGRAPHY

Part-I

1. Introduction to Maps
   (a) Types of Maps
   (b) Scales-Plain, diagonal, comparative and their uses..

2. Interpretation of:
   (a) Topograhical Maps
   (b) Composite Contours Maps.
   (c) Weather maps of Pakistan.
   (d) An introduction to Aerial Photographs and Remote Sensing.
3. Methods of showing relief, drawing of Composite Contours with the help of given data.
4. Simple quantitative techniques and their use in Geography. Methods of Data collection, Study of frequency distribution, averages (mean, median and mode) mean deviation, standard deviation.
5. Field report based on the study of geographical aspects of a selected area / activity.

Part-II

1. Map projections: general properties, classification, choice of projection, merits and demerits, construction of graticule of following projections.
   (a) Cyclindrical-simple, equal area, and mercator's (with table)
   (b) Zenithal Gnomonic, Sterographic, Orthographic (polar case)
   (c) Conical-one and two standard parallels and Bonne's.
   Note: There will be compulsory question on projections.
2. Preparation of distributional maps with the help of symbols, lines, bars, shades, dots and circles.
3. Instrumental surveying: making of plans with the help of chain, plane table and prismatic compass.
4. Introduction to the basic computing: DOS, WINDOWS, Word processing and simple graphics.

Books Recommended

1. Robinson.A.N. Elements of Cartography.
2. Leon.A & Leon M. Introduction to computers.
3. Bert ET. Elements of statistics for Geographers.
4. Khan J.A.Weather maps interpretation of Pakistan.
5. Benton. Jr. A.R. Elements of plane surveying.
6. Avery.T.E. and Bertin.G.L. Fundamentals of Remote sensing and Air Photo Interpretation.
7. Campbell J. Introduction to Cartography.
8. Briggs. K. Practical Geography.
9. Ahmad.K.S. Map Projection.
10. Miller.V.C. & Westerback. M.E. An interpretation of Topographical maps.

HEALTH & PHYSICAL EDUCATION

Paper-I

Theory 75 Marks Time 3 Hours
(Question No 1 is compulsory 15 Marks)
(Two questions out of four from Section-I and two out of Four from section –II 60 Marks
Practical 25 Marks Time 3 hours

Paper-II

Theory 75 Marks Time 3 Hours
(Question No 1 is compulsory 15 Marks)
(Two questions out of four from Section-I and two out of Four from section –II 60 Marks
Practical 25 Marks Time 3 hours

DETAILS OF COURSES
PAPER-I (third year)
SECTION-I

1. INTRODUCTION TO PHYSICAL EDUCATION
a. Definition d. Scope
b. Aims and Objectives e. Importance in present
c. Scientific Foundations of day life

2. MOVEMENT EDUCATION
a. Definition
b. Types of movement
c. Factors affecting movement; Gravity, Air resistance, Mass, Friction, Equilibrium, Levers, Muscular Strength and Power, Flexibility, Metabolic Functioning
d. Biomechanical Analysis of the following movement concepts
i. Stretching
ii. Jumping
iii. Running
iv. Balancing and weight bearing

3. RELIGIOUS RITUALS AND MOVEMENT
a. General importance with
b. Namaz
c. Haj ,reference to Quran & Sunnah
d. Jehad

4. RECREATION
a. Definition, need and importance.
b. Introduction of Recreational activities, mental recreation (Indigenous games, small area sports, indoor and outdoor games)

c. Utilization of Educational Institutions as Community Recreational
Centres.

5. HUMAN ORGANISM

a. Anatomy Physiology and effects of exercise on the following systems
i. Muscular system
ii. Circulatory system

6. FIRST AID

a Definition and importance
b. General principles of First Aid
c. Qualities of First Aider
d Signs, Symptoms and First Aid of Fractures, Dislocation, Sprains, Strains, Cramps, Wounds, Shocks, Sun Stroke, Bites, Poisons.

7. FATIGUE AND RELAXATION

8. OUTDOOR PURSUITS

Significance and organisation of the following:
a Rovering (Men) c. Hiking & Hill Trekking
b. Senior guides (Women) d Youth Hostelling

SECTION-II

9. GAMES AND SPORTS

a. Importance of games and sports
b. Qualities of Sportsmen and code of ethics

Men

Basketball, Volleyball & Football

Women

Tennis, Volleyball & Basketball

10. TRACK AND FIELD EVENTS

a. Introduction of track and field events (National level)
b. Rules, regulations and techniques of the following events:
i. 100, 400 &1500 meters
ii Throwing the javelin
iii. Tripple jump for men
iv. Long jump for women

11. INTRODUCTION OF HEALTH EDUCATION

a. Definition and Scope c. Relationship with Physical Education
b. Importance d. Health and longevity

12. POSTURE & POSTURAL DEFECTS

a. Posture and its importance
b. General deformities (Kyphosis, Lordosis, Khypholordosis, Scoliosis, Knee Knocking, Flat foot)
c. Causes of deformities
d. Remedial exercises

PRACTICAL Third Year

Note. Each question carries 5 marks.

1. Exercises of the body about Movement Education and postural Deffects.
2. Gymnastics/Agilities
   Forward Roll, Backward Roll & Dive Roll
3. Skills efficiency in games
   MEN: Football, Volleyball, Basketball
   WOMEN: Tennis, Volleyball, Basketball
4. Skill efficiency in Track & Field
   100M, 400M, 1500M, Javelin Throw, Tripple jump(men), Long jump()women.
5. Note Book & Viva
   Note: Uniform is compulsory. (Track suit, Trousers, T-shirts, Sports shoes, etc.)

PAPER-II (fourth Year)

SECTION – I

1. HISTORICAL BACKGROUND OF PHYSICAL EDUCATION

a. Physical education in Pakistan

2. SAFETY EDUCATION

a. Definition d. Traffic safety
b. Importance e. Sports safety
c. Home safety

3. PHYSICAL MOTOR FITNESS

a. Definition
b. Importance of Physical Fitness
c. Components of Physical Fitness
i. Cardiovascular Endurance
ii. Muscular Power
iii. Muscular Endurance
d. Motor Fitness
i. Speed
ii. Agility
iii. Balance

4. PERSONAL HYGIENE

a. Islamic concept about personal hygiene
Care of Eyes, Nose, Throat, Teeth, Feet, Finger, Nails, Arm Pits, Skin, Hair and Dress
b. Drug Abuse, Effects of the following on human health:
Opium, Morphine, Hashish, Heroin, Charas, Alcohol.

5. COMMUNITY HEALTH

a. Public Health problems
b. Community Health Centre
c. Sanitation of home, school and locality
d. Symptoms, Causes & prevention of the following Communicable diseases:

i. Aids, Tuberculosis, Hepatitis (B &C)

6. Human Organism

i. Respitarory system
ii. Nervous System

SECTION-II

7. ENVIRONMENTAL POLLUTION

a. Air
b. Water
c. Noise
d. Radiation

8. MASSAGE

a. Definition of Massage
b. Utility and importance of Massage
c. Types of Massage; Aquatics, Mud, Manual etc.

9. NUTRITION

a. Calories and Caloric requirement
b. Constituents of food
c. Balanced Diet with special reference to the sources of food available in Pakistan
d. Effect of malnutrition on human body

10. Systems of Tournaments

i) League (Round Robin) System
ii) Knock out (Elimination) System
iii) Combination system

Rules and techniques of the following:

Men & Women

Hockey, Badminton & Table Tennis, Cricket.

11. TRACK AND FIELD EVENTS

a. Introduction of track and field events (National level)
b. Rules, regulations and techniques of the following events:
i. 800 meters
ii. 4 x 100 meters race
iii. High jump
iii. Putting the shot

PRACTICALS Fourth Year
Note. Each question carries 5 marks.

1. Exercises of the body about Physical fitness.
2. Gymnastics:
   Head Standing, Hand Standing, Cart Wheeling.
3. Skill of Games.
   Hockey, TableTennis, Cricket, Badminton
4. Skills in Athletics
   4 x 100M, 800M, Shot put, High Jump.
5. Note Book & Viva.

Note: Uniform is compulsory. (Track suit, Trousers, T-shirts, Sports shoes, etc.)

History

CURRICULUM FOR B.A. (History)
SCHEME OF STUDIES

B.A. History syllabus shall consist of 2 papers, of 100 marks each. Students should be asked to choose any one of the following **Three groups**. In each paper there shall be objective type of questions of 20 marks which will be compulsory

1. ISLAMIC HISTORY

(A) Pre-Islamic Arabia to the Fall of Ummayads (570 A.D. - 750 A.D). (Part-I)

(B) History of Abbasides (750 A.D. - 1258 A.D). (Part-II)
Muslim Rule in Spain (712 AD -- 1492 AD)

2. HISTORY OF PAKISTAN.

(A) 1857 A.D. - 1947 A.D. (Part-I)
(History of Pakistan Movement - Rise of Muslim Nationalism in South Asia).

(B) 1947 A.D. - 2002 A.D. (Part-II)
(History of Pakistan).

DETAILS OF COURSES.
ISLAMIC HISTORY (Part-1) 3rd year
(PRE-ISLAMIC ARABIA TO THE FALL OF UMMAYYADS).
(570 A.D. - 750 A.D.

1. **Pre-Islamic Arabia.**

Geographical, Political, Social, Economic and Religious conditions, the City State of Makkah.

2. **The Holy Prophet (SAW).**

Birth of the Prophet, Prophethood and Preaching of Islam, the opposition of the Quraish; Migration to Ethopia and Medina. Socioeconomic and cultural foundations including contributions of Ashab-e-Suffa.

Brotherhood, the Medina charter, Wars with Quraish, (Battles of Badr, Uhd and Ahzab), the peace accord of Hudaibiyya, the Prophet's letters to the various rulers, the conquest of Macca, the Battle of Hunain, the spread of Islam in Central Arabia, the Tubuk expedition, the Prophet's last pilgrimage and the significance of the last Sermon, his Seerat and achievements.

3. **Hazrat Abu Bakr (RA)**

His early life and sacrifices for the cause of Islam, his election as Caliph; the movement of apostasy, rise of false prophets, the refusal of Zakat, the consolidation of centre, the conquest of Iraq, relations with Iran, Syria, and Byzantine, the compilation of the Quran, his character and achievements.

4. **Hazrat Umar Bin Khattab(RA).**

His early life and acceptance of Islam, his services to the cause of

Islam, his role during the Caliphate of Abu Bakr, Umar's nomination as Caliph, the conquests of Iran, Syria, Palestine, Egypt, Azerbaijan and Armenia, expansion of Muslim power, his reforms and administration, development of Muslim institutions and the projects of public welfare, his character and achievements.

5. **Hazrat Uthman (RA)**

His early life, acceptance of Islam, his role during the life time of the Prophet, Abu Bakr and Umar, his election as Caliph; conquest of North Africa, Cyprus, Tabaristan, Tukharistan and Makran, the Sabite movement, opposition of Uthman. His martyrdom and its consequences, his services to the cause of Islam, his character and achievements.

6. **Hazrat Ali (RA)**

His early life, his role during the life time of the Prophet, Abu Bakr, Umar and Uthman, his installation as Caliph, the Battle of the Camel, the Battle of Siffin, emergence of the Kharjites, battle of Naharwan, Hazrat Ali's martyrdom, his character and achievements. Imam Hasan as Caliph, his abdication.

7. **Administrations and Structure of Government under the Khulafa-IRashidin**

Administrative, financial and Judicial System under the **Pious Cliphs,** the status of the Dhimmis and the "Mawali", the social life of the Muslims, Salient features of the **Pious Caliphate**.

THE UMAYYADS AT DAMASCUS

8. **Amir Muawiyah:**

Political condition of Islamic World at the time of his accession, establishment of Umayyad dynasty. Changed character of the caliphate, nomination versus elections, measures to consolidate the empire his administration. His achievements and character.

9. **Yazid-I**

His succession and the rule of single dynasty. The tragedy of Karbala its effects and significance in the history of Islam event of "Harrah". Seige of Macca.

10. **Marwan Bin Hakam.**

Abdullah Ibn Zubair, Jabia Conference, Election of Marwan, the battle of Marj-i-Rahit, Marwan's internal policy and consolidation of power, his estimate of character.

11. **Abdul Malik Bin Marwan.**

Political condition of Islamic world at the time of his accession. The real founder of Umayyad dynasty, consolidation of his power, his administrative policy and reforms, the role of Hajjaj bin Yousaf, his character and achievements.

12. **Walid Bin Abdul Malik.**

Expansion of Islamic empire in Asia, Africa and Europe, his works of public utility, his reforms and achievements. His glorious reign.

13. **Sulaiman Bin Abdul Malik.**

His ill treatment of Muslim generals, siege of constan tinople, his character and policies. Nomination of Umar bin Abdul Aziz.

14. **Umar Bin Abdul Aziz.**

The fifth pious Caliph; Administrative and religious reforms; state policy; character and achievements.

15. **Hisham and Later Umayyads.**

Important events of their rule; Main events; conquests. Abbaside Movement; propaganda and the causes of success.

16. **Down Fall of Umayyad.**

Causes of decline and fall of the Umayyads dynasty.

17. **Nature of Umayyad Rule.**

Growth and expansion of Islamic empire; central and provincial administration; Judiciary and Military system; social, cultural and economic development.

Suggested Readings.

1. Syed Amir Ali, The History of the Saracens
2. Syed Amir Ali, The Spirit of Islam.
3. J. Wellhausen, The Arab Kingdom and its Fall.
4. S.A.Q. Hussaini, Arab Asministration.
5. Mazharuddin Siddiqui, Development of Islamic State and Society.
6. Cambridge History of Islam, (Relevant Chapters).
7. Bernared Lewis: Islam and the World
13. Philip K. Hitti: History of the Arabs
14. Habib Hourani: History of the Arabs
15. Montgomery Watt: Muhammad at Mecca Muhammad at Madina
16. Shaban: Abbaside Revolution. Cambridge.

OPTION-I

ISLAMIC HISTORY
PART-II (4th Year)
HISTORY OF ABBASIDES
750 AD - 1258 AD

1. **The Abbaside Movement.**

The Abbaside Movement and causes of its success, Role of Abu Muslim Khurasani, establishment of Abbaside Caliphate.

2. **Abul Abbas Al Saffah.**

His character and consolidation of power.

3. **Abu Jaffar Al Mansur.**

Rebellions of Abdullah bin Ali and Abu Muslim Khurasani; Rawindiya sect and the Kharjites; Mansur and the Alids; Conquets and consolidation of the Caliphate - Administration - Foundation of Baghdad - Character and achievements.

4. **Al Mehdi.**

Revolts of Muqannah and Zindiqa; conquests; Wars against the Romans; his estimates.

5. **Al Hadi.**

His policy towards Alids; revolts; his estimates.

6. **Harun al Rashid.**

Rise and fall of the Barmakides, early revolts; wars in Africa, establishment of Idrisia Kingdom; war against Romans – His character and achievements.

7. **Amin-al-Rashid.**

Differences with Mamun; war between the two brothers and murder of Amin; his estimates.

8. **Mamun-al-Rashid.**

Disorder in Baghdad, Entry in Baghdad - Tahiriyya and Zaidiyya Kingdoms - Babak Khurrami - conquests in the East, Asia Minor and the Mediterranean - His religious policy – Mutazalite, scientific and literary progress.

9. **Mutasim Billah.**

Turkish soldiery; foundation of Samarra - conquests inAsia Minor; his estimate.

10. **Wasiq Billah**

Aggrandisement of Turks. Turkish soldiery cut to size; new religious policy and its results.

11. **Mutawakkil**

His State Policy, Religious Policy, His murder.

12. **Later Abbasides**

From Muntasir Billah to Mustasim Billah, a brief survey - Fall of Baghdad at the hands of Hulaku Khan.

13. **Independent Kingdoms**

Samaniyya - Al-Hamdan - Al-i-Buwayh - Suljuks - Ayyubi. Tulunid Turks of Egypt.

14. **Crusades.**

Their political, religious and economic causes - Brief survey of first, second and third rounds - Results of the Crusades.

15. **Downfall of Abbasides**

Causes of the downfall of the Abbaside Caliphate.

16. **Abbaside Administration**

Central structure and its main functionaries - Provincial administration - sources of income - Army - Judiciary.

17. **Literary, Educational and Scientific Developments**

Science, Art and Literature: Bait-ul-Hikmat; Medicine, Philosophy, Ilmul-Kalam, Ikhwan-us-Safa, Astronomy and Astrology, Mathematics, Chemistry, Zoology, Geography and History - Traditions and Jurisprudence - Poetry, Architecture, Calligraphy, Paintings and Music.

18. **Societies and Economic Life**

Society and Economic life under the Abbasides.

Suggested Readings.

1. Sir T.W. Arnold, The Caliphate.
2. Amir Hussain Siddiqui, Islamic State; A Historical Survey.

3. Fayyaz Mahmood, History of Islam.
4. Syed Amir Ali, London, The Short History of Saracens.
5. Syed Amir Ali, London, The Spirit of Islam.
6. S.A.Q. Hussani, Arab Administration.
7. Mazaral-ul-Haq, History of Islam.

PART-II (4th Year)
MUSLIM RULE IN SPAIN
(712 AD - 1492 AD)

1. Condition of Spain on the eve of the Muslim conquest (political, social and religious).
2. Conquest of Spain: Musa bin Nusair and Tariq bin Ziyad. The causes of invasion and success.
3. Spain under Muslim Governors: Emergence of Christian State of the North.
4. Abdul Rehman I: His character and achievements.
5. Hisham I: His internal policy, introduction of Maliki Fiqh.
6. Hakam I: His character and achievements, relations with the theologians, wars and rebellions, rise of Maliki Fiqah.
7. Abdul Rehman II: His character and achievements, relations with Christians, foreign policy, cultural and literary activities.
8. Muhammad I: his character and achievements, his relations with Non-Muslims, rebellion in Toledo, rise of Banu Qisi, rebellions of Ibn Marvan and Ibn Hafsun, succession of Munzar and Abdullah.
9. Abdul Rehman III: Early difficulties, restoration of law and order, Internal and External policy, relations with the Christians and Fatimids, the title of Caliph, his character and achievements.
10. Hakam II: His relations with North Africa and Christians, advancement of art and literature.
11. Hisham II (Hisham Almoeed). His character and achievements.
12. Later Umayyads, the rise of Hajib-al-Mansur; relations with the courtiers and Theologians, Jihad against the Christians, his character and achievements.
13. Administration of Spain under the Umayyads.
14. Petty Dynasties.
15. Decline and fall of Umayyads of Spain: Causes, Almoravids, Almohads,
16. Fall of Granada (1492)
17. Contribution to Arts, Architecture, Literature and Science.

Suggested Readings

1. Dr.Imam-ud-Din, Dacca, 1959, Political History of Muslim Spain.
2. Dr. Imam-ud-Din, A Cultural History of Spain.
3. Dozy, R., Spanish Islam.
4. Stanley Lane Pole, The Moors in Spain. Lahore 1953.
5. T.B. Irving: The Falcons of Spain.

OPTION-II(for 3rd Year)

HISTORY OF MUSLIM RULE IN SOUTH ASIA

(Part-I)

(712 AD - 1526 AD)

(Conquest of Sindh - Delhi Sultanate - upto the Advent of Mughals)

1. **Concept of History**

Definition, Methodology, and relations of the discipline of History with other social sciences

2. **Geographical Unity of Indus Valley**

Geophysical features, Geography of Indus Valley, and its significance.

3. **Original Sources**

An introduction to basic original sources of the period.

4. **South Asia on the eve of Arab Conquest**

a. Historical background, Geographical, Political, Social, Religious and Economic conditions of South Asia; Its relations with neighboring regions.

b. Causes of Arab invasion of Sindh - Muhammad bin Qasim and his conquests, Arab administration of Sind, Settlement of Brahmanabad - political, cultural, religious and social impacts of the conquests. City states of Makran, Mansurah, and Multan.

5. **Sultan Mahmud of Ghazana**

Causes of his Indian campaigns, its significance and impact. Character and achievements. Alberuni and his contributions.

6. **Ghaznavides at Lahore**

Lahore as a centre of art and literature. Downfall of Ghaznavides and re-emergence of minor states.

7. **Sultan Shahab-ud-Din Muhammad Ghori**

His Indian campaigns, Character and achievements, Muizzi Maliks - Causes of the defeat of Hindu India.

8. **Ilburi Turks**

Sultan Qutbuddin Aibak, Sultan Shams-ud-Din Iltutumish, his early difficulties - his achievements as the real founder of Sultanate, relations with Caliphate, his successors, Sultan Razia, Nasiruddin Mahmud and his policy, Ghiasuddin Balban, his theory of Kingship, consolidation of Sultanate, Mongol problem, Kaiqubad and the end of Ilburi Turk's Dynasty, Slave System as a source of weakness and strength.

9. **Khalji Dynasty**

Significance of Khalji Revolution - Feroz Khalji and his character - Sultan Alauddin Khalji, his reforms and conquests, Deccan Policy; Malik Kafur, Qutbuddin Mubarik and end of the Khalji Dynasty.

10. **Tughluq Dynasty**

Ghiasuddin Tughluq: his administration and character: Sultan Muahmmad bin Tughluq: his character and personality, mixture of two extremes, his plans and their failure, out-break of rebellions, his Deccan Policy - Sultan Feroz Shah Tughluq, his military expeditions, administrative reforms, public works, religious policy; Amir Timur's

invasion, End of Tughluq Dynasty .

11. **Sayyids**

Khizar Khan: Character and achievements.

12. **Lodhis**

Sikanadar Lodhi: his administration and religious policy; Ibrahim Lodhi and end of the Delhi Sultanate.

13. **Contemporary independent kingdoms**

Bahmani, Vijaynagar , Sindh, and Kashmir.

14. **Downfall of the Sultanate of Delhi**

The causes of the downfall of Sultanate of Delhi.

15. **Administration of Delhi Sultanate**

Central and Provincial Departments, Army, Land revenue system, and Judiciary.

16. **Social and Cultural Contribution of the Sultans of Delhi**

a. Contributions in Historiography, Literature, Education, Arts and Culture, Amir Khusrau and his contributions.

b. Architecture: main characteristics of Muslim architecture - Important buildings of the period.

c. Society, Economic conditions and Commerce.

17. **Religious Trends**

Role of Ulemas, Role of Sufis, Sufi orders (Chistiya & Suharwardia), important Sufis of the period, Bhagti Movement, its origin, and impact.

Suggested Readings

1. S.M. Ikram, History of Muslim Civilization in India and Pakistan.
2. S.M. Ikram, History of Muslim Rule in India.
3. Abdul Qadir, History of Indo-Pak.
4. A.B.M. Habibullah, The Foundation of Muslim Rule in India.
5. Sir Wolsely Haig, The Cambridge History of India.
6. I.H. Qureshi, The Muslim Community of the Indo-Pakistan Subcontinent.
7. I.H. Qurshi, The Administration of the Sultanate of Delhi.
8. I.H. Qureshi, A short history of Pakistan. Vol-II. Edited.
9. Hussain, J. “A History of the Peoples of Pakistan”, 1998 O.U.P., Karachi.

HISTORY OF MUSLIM RULE IN SOUTH ASIA
PART-II (4th Year)
(1526 AD - 1857 AD)
(Rise and Fall of Mughals)

1. **Original Sources**

An outline of basic original sources of the period.

2. **South Asia at the advent of Mughals**

Socio-Political conditions of South Asia at the eve of Mughal invasion, Causes of the advent.

3 . **Z ahir-ud-Din Muhammad Babur**

His early life; invasion on South Asia, First battle of Panipat, foundation of Mughal rule, defeat of Rajputs; His character and personality as a Literary man, as a Statesman and as a General.

4 . **N aseer-ud-Din Muhammad Humayun**
His early life, his difficulties after accession, early expeditions, defeat at the hands of Sher Shah Suri. Causes of his failure. His exile in Persia and recapture of Delhi. His character and estimates.
5 . **S her Shah Suri and the establishment of Sur dynasty**
His early life, capture of throne and conquests, his reforms; Administration and public works. His achievements as a ruler; successors of Sher Shah and the end of Sur dynasty.
6 . **J alaluddin Muhammad Akbar**
His early life, accession to throne, second battle of Panipat; Bairam Khan and his downfall; Petticoat government; conquests in the north and the Rajput policy; penetration in the south and Deccan policy; Religious trends and his Religious policy; Din-e-Ellahi. Administration, Mansabdari system; his Land revenue systems. His character and achievements.
7. **Nuruddin Muhammad Jahangir**
His accession; Khusru's revolt; conquests in the North and South. Noor Jehan and her marriage with Jahangir; her ascendancy; Qandhar question; revolts of Prince Khurram and Mahabat Khan. His character and estimates. Patronage towards painting.
8. **Shahabuddin Muhammad Shah Jehan**
His early life, marriage with Mumtaz Mahal, his accession to throne, golden period of the Mughal Rule. His central Asian Policy; Deccan Policy. War of succession between his sons; causes of the success of Aurangzeb and the failure of Dara Shikoh. His character and achievements as an architect King.
9. **Mohiyuddin Muhammad Aurangzeb Alamgir**
His early life, accession and theory of kingship; His military expeditions, Rajput Policy, Deccan Policy, His policy towards Marhatas and Sikhs, his religious policy. His character and achievements.
10. **Period of Decadence: later Mughals**
Causes of the decline of the Mughal Empire, Rise of European powers in India, Invasion of Nadir Shah of Iran and Ahmad Shah Abdali of Afghanistan.
11. **Growth of Independent Principalities**
Punjab, Bengal, Ouadh, Deccan, and Mysore.
12. **Socio-cultural and Economic conditions under the Mughals**
a. Contributions in the field of Art, Architecture and Literature;
b. Society; Commerce; Industry; and Economic Developments.
13. **Religious Movements**
"Mahdavi" movement; Muslim Tasawwaf, Qadria and Naqshbandia order; Hazrat Mujaddid Alf-i-Sani and his services towards revival of Islam. Shah Waliullah and his contributions. Faraizi Movement.

Suggested Readings.

1. S.M. Ikram, History of Muslim Civilization in India and Pakistan.
2. S.M. Ikram, History of Muslim Rule in India.

3. Syed Abdul Qadir, History of Indo-Pak.
4. Prof. Zubair, History of Indo-Pak.
5. I.H. Qureshi, The Administration of Mughal Empire.
6. Sir Wolseley Haig, The Cambridge History of India.
7. I.H. Qureshi, The Muslim Community of the Indo-Pakistan subcontinent.
8. I.H. Qureshi, A short history of Pakistan, Vol.III.
9. Sh. Rashid, "Later Muslims"
10. Islam R. "Sufism in South Asia" 2002, OUP, Karachi
11. Khan, Gulfishan, "Indian Muslims Perception of the West

Option - III

HISTORY OF PAKISTAN MOVEMENT
PART-I (3rd year)
(1857 AD - 1947 AD)

1. **Concept of History**

Definition, Methodology, and relations of the discipline of History with other social sciences

2. **The War of Independence 1857 AD**

Its causes, events, and impacts. Failure of the War of Independence and its effects especially on the Muslims. Early constitutional developments.

3. **Sir Syed Ahmad Khan and the Aligarh Movement**

Sir Syed Ahmad Khan and the Aligarh Movement. His Social, Political, Educational, and Religious contributions to the Muslims of South Asia. Urdu – Hindi controversy and the Two Nation Theory.

4. **Religious & Educational Movements and Institutions of the Muslims**

Dar-ul-Aloom Deoband, Tehrik-i-Mujahudeen, Hur Movement, Tehrik-i-Rashmi Romal, Nadva-Tul-Aulama Lucknow, Anjuman Himayat -i-Islam, Muhammadan literary society Bengal, Sindh Madrasa-tul-Islam Karachi, and Islamia College, Peshawar.

5. **Hindu Revivalist Movements**

Arya Samaj, Barhamo Samaj, Theosophical society, Rama Krishana Mission.

6. **Indian National Congress**

Formation of Indian National Congress, Indian Council Act-1892, limitations and impact on Mulsims.

7. **Syed Ameer Ali**

His early life, Central Muhammadan Association. His services for the Muslims of South Asia.

8. **Urdu Defence Movement**

Urdu Defence Movement, Nawab Mohsin-ul-Mulk and Nawab Viqar-ul-Mulk and the formation of Muhamadan Political Organization.

9. **Partition of Bengal- 1905**

Partition of Bengal, its causes, Swadeshi Movement and revitalization of Hindu nationalism and its impact on Muslims. Hindu reaction to

partition of Bengal and its Annulment.

10. **Formation of All India Muslim League - 1906**

Simla Deputation and its proposals. Formation of Muslim League, its objectives and evolution.

11. **Minto - Morley Reforms 1909**

Salient features of Minto - Morley Reforms of 1909.

12. **Hindu Muslim Unity**

Lucknow Pact 1916, Rowlatt Act, Jalianwala Bagh Tragedy, Ali Brothers and the Khalifat Movement, M.K. Gandhi. Tehrik-i-Tarak-i-Mawalat. Movement for the separation of Sindh from the Bombay Presidency.

13. **Dyarchy system and its failure**

The Government of India Act-1919, Dyarchy and its failure.

14. **The Constitutional Developments upto 1935**

Delhi Proposals, Simon Commission, Nehru Report, Quaid-i-Azam's Fourteen points. Allama Iqbal's Allabad address of 1930, Simon Commission Report, The first, second and third round table conferences in London, Communal Award and Poona Pact.

15. **Government of India Act- 1935**

The introduction of Government of India Act-1935, its salient features and impacts on India.

16. **Congress Ministries**

General Elections of 1937, Formation of Congress Ministries in various provinces of India and their attitude towards Muslims, Pirpur report, Sharif report, C.P. mey congressi raj (Hakim Asrar Ahmad report)

17. **Demand for separate Muslim state**

Kheri Brothers proposals – 1917, Ch. Rahmat Ali's proposals of 1933, Sindh Provincial Muslim League demand of 1938 for separate Muslim state.

18. **The Demand for Pakistan: 1940-47**

Lahore Resolution -1940, August offer, Cripp's proposal of 1942, Quit India Movement – 1942, Ghandhi Jinnah talk –1944, Wavell plan –1945 and the Simla conference, General Elections of 1945-46, Cabinet Mission Plan-1946, Direct Action Day, Formation of Interim Government, London meeting of December 1946, Mr. Attlee's announcement of February –1947, Lord Mountbattern and June 3rd Plan, Indian Independence Act.-1947, Radcliffe Award, Emergence of Pakistan as a sovereign Muslim state.

19. **Quaid-i-Azam Muhammad Ali Jinnah**

His life and services for the cause of Pakistan.

Suggested Readings:

1. I.H. Qureshi, The Struggle for Pakistan.
2. Ch. Muhammad Ali, Emergence of Pakistan.
3. Jamil-ud-Din Ahmad, Early Phase of struggle for Pakistan.
4. Jamil-ud-Din Ahmad, Middle phase of struggle for Pakistan.
5. Jamil-ud-Din Ahmad, Final phase of struggle for Pakistan.

6. Muhammad Saleem Ahmad, The All India Muslim League upto 1919 A.D.
7. K.K. Aziz, Making of Pakistan.
8. Waheed-uz-Zaman, Towards Pakistan.
9. I.H. Qureshi, A short history of Pakistan Vol.IV.
10. Khalid bin Sayeed, Formative Phase.
11. Stanely Walpert, Jinnah of Pakistan.
12. Abdul Hameed, Muslim Separation in India.

HISTORY OF PAKISTAN
PART-II (4th year)
1947A.D. ---- 2000 A.D.

1. **Early period**

Introduction and Background of Pakistan. Early difficulties and problems with especial emphasis on Kashmir issue and Canal Water dispute. Quaid-i-Azam as Governor General.

2. **Political and Constitutional Development: Formative phase (1947-58)**

The objective Resolution 1949, Basic principles committee's report, Muhammad Ali Bogra's Formula, Dissolution of the first Constituent Assembly, Formation of one unit, constitution of 1956, its main features.

3. **Military rule: (1958-1971)**

The Basic democracy, the constitution of 1962, its working and failure. Ayub Khan's Regime; growth of Industrialization, Agricultural reforms, Indo-Pakistan War 1965.

Yahya Khan's regime, his Legal Frame Work Order, General elections of 1970, Awami Leagues six points programme, the political crises, Indo-Pak War 1971, causes for the Separation of East Pakistan, Fall of Dhaka.

4. **Revival of Democracy in Pakistan (1972-77)**

Z.A. Bhutto's regime, Policies, reforms 1973 Constitution and its first seven Amendments

Failure of Parliamentary Democracy in Pakistan, circumstances leading to the imposition of Martial Law in 1977.

5. **Military Rule: (1977-88)**

Zia-ul-Haq's policies and efforts at the Islamization of Laws.
Restoration of Parliamentary system, Referendum, Elections of 1985.
RCO and the 8th Amendment, Junejo's Ministry, Dissolution of the Assembly,

6. **Restoration of Democratic Governments**

Constitutional Amendments.
The functioning of Democratic Governments and their failure.

7. **Political Parties**

Pakistan Muslim League, Awami League, Jamat-i-Islami, Jamiat-ul-Islam, Jamiat-ul-Ulama-e-Pakistan, National Awami Party, Pakistan Peoples Party.

8. **Vested Interest Groups**
Feudals, Sectarian Parties, Military and Civil Bureaucracy, Ethnicity.
9. **Economic Development**
Land Reforms; Industrial Development, Nationalization Denationalization and Privatization.
10. **Foreign Policy**
Basic principles of Pakistan's Foreign Policy.
Relations with immediate neighbours: India, Afghanistan, Iran, China and Central Asia.
Relations with Muslim World: Saudi Arabia, Turkey, Iraq and Indonesia, Malaysia.
Relations with Super Powers: U.S.A., Russia, Defense Pacts: SEATO, CENTO, Economic Pacts: RCD, ECO, SAARC, OIC.
Relations with the European Union.
Pakistan's Stand on War against Terrorism.
11. **Human Rights in Pakistan**
Human Rights, Gender Issue, child Labour, Minorities
Suggested Readings.
1. I.H. Qureshi, A Short Histroy of Pakistan.
2. Khalid bin Saeed, The Political System of Pakistan.
3. G.W. Chaudhry, Constitutional Development in Pakistan.
4. Inaytullah, Economic Problems of Pakistan.
5. S.M. Burke, Foreign Policy of Pakistan.
6. Safdar Mahmood, Pakistan: History and Politics.
7. Ayub Khan, Friends not Masters.
8. Rafiq Afzal, Political Parties in Pakistan.
9. Hasan Askari, Military & Politics in Pakistan.
10. Lawrence Ziring, Pakistan in the 20th Century.
11. Stanly worlpert, Zulfi Bhutto of Pakistan.
17. Jalal, Ayesha "The Sole Spokesman".
18. " " "Sovereignty and the Self"
19. Ziring, L. "Ayub Khan Era"
20. Ali, Shaukat "Pakistan – A Religin – Political History".

Islamic History Part-I

شبلی نعمانی (سیرت النبی ﷺ حصہ اول)
علی محسن صدیقی (الصدیق اکبر آبادی، قرطاس کراچی ۲۰۰۰)
اسلم جیراجپوری (تاریخ الامت)
شبلی نعمانی (الفاروق)
سعید احمد اکبر آبادی (عثمان ذوالنورین، حصہ اول)
مولانا شاہ معین الدین ندوی (تاریخ اسلام)

Islamic History Part-II

History of Abbasides

معین الدین ندوی (تاریخ اسلام حصہ اول سوئم تا چہارم) اعظم گڑھ
حسن ابراہیم حسن (مسلمانوں کا نظم مملکت)
اسلم جیراجپوری (تاریخ الامت)
شبلی نعمانی (المامون)
اکبر نجیب آبادی (تاریخ اسلام)

Muslim Rule In Spain

ریاست علی ندوی (تاریخ اندلس) حصہ اول نیشنل بک فاؤنڈیشن کراچی
ڈاکٹر نصیر احمد ناصر (تاریخ ہسپانیہ)
مصری (نفح الطیب) ترجمہ خلیل الرحمن علی گڑھ ۱۹۳۱
آرڈزی (عبرت نامہ اندلس) ترجمہ عنایت اللہ
ادارہ تحقیقات اسلامیہ (اندلس کی اسلامی میراث) اسلام آباد
معین الدین ندوی (تاریخ اسلام حصہ دوم) اعظم گڑھ

History of Muslim rule in South Asia Part-I

یحییٰ امجد (تاریخ پاکستان)
ستی ایچ قریشی (برصغیر پاک و ہند کی ملت اسلامیہ) مترجم بلال احمد زبیری
تارہ چند (تمدن ہند پر اسلامی اثرات)
آئی ایچ قریشی (سلطنت دہلی کا نظم و نسق) مترجم بلال احمد زبیری

History of Muslim rule in South Asia Part-II

صلاح الدین عبدالرحمن (بزم تیموریہ)
ڈاکٹر مبارک علی (مغل دربار)
ڈاکٹر مبارک علی (آخری عہد مغلیہ کا ہندوستان)
ملک محمد تاج (زوال سلطنت مغلیہ) پبلشر مکتبہ حریت لاہور
ایس ایم اکرام (روکوثر)

History of Pakistan Movement Part-I

حسن ریاض سید (پاکستان ناگزیر تھا)
چوہدری محمد علی (ظہور پاکستان)
ڈاکٹر حسن عسکری رضوی، پروفیسر رفیع انور (تحریک پاکستان)
شیخ محمد رفیق (تاریخ پاکستان)
محمد عبداللہ ملک (تاریخ پاکستان) ۱۹۴۳-۱۹۵۳

History of Pakistan Movement Part-II

چوہدری محمد علی (ظہور پاکستان)
شیخ محمد رفیق (تاریخ پاکستان) ۱۹۴۷-۱۹۸۸
محمد عبداللہ ملک (تاریخ پاکستان)
نور احمد (مارشل لاء سے مارشل لا تک)
صفدر محمود (پاکستان، سیاست و تاریخ)
صفدر محمود (مسلم لیگ کا دور حکومت)
مہدی حسن (پاکستان کی سیاسی جماعتیں)

Islamic Education

خاکہ برائے اسلامیات لازمی

(برائے عمومی ڈگری کلاسز)

پرچہ میں نمبروں کی تقسیم درج ذیل ہو گی۔

قرآن حکیم موضوعاتی مطالعہ	۳۰ نمبر
اسوۂ حسنہ	۱۵ نمبر
اسلامی تہذیب	۱۵ نمبر
میزان :	۶۰ نمبر
(۱) قرآن حکیم (موضوعاتی مطالعہ)	۳۰ نمبر

اسلامیات لازمی کے پرچہ میں طالب علموں کے لیے لازمی ہوگا کہ کم از کم چار آیات اور دو احادیث کا ترجمہ اور تشریح کریں۔

قرآن حکیم (موضوعاتی مطالعہ) میں ۳۰ نمبروں کی تقسیم درج ذیل ہوگی۔

آیات کا ترجمہ	۴×۲ = ۸ نمبر
آیات کی تشریح	۶×۲ = ۱۲ نمبر
احادیث کا ترجمہ	۲×۲ = ۴ نمبر
احادیث کی تشریح	۳×۲ = ۶ نمبر
میزان :	۳۰ نمبر

(نوٹ) موجودہ اسکیم کے تحت بی۔اے، بی ایس سی اور پروفیشنل ڈگری پروگرامز میں داخل ہونے والے طلباء و طالبات قرآن حکیم ناظرہ مکمل کر چکے اور قرآن کے بیشتر حصے کا ترجمہ بھی پڑھ چکے ہوں گے۔ اس لیے اس مرحلے میں قرآن حکیم کا موضوعاتی مطالعہ کروایا جائے گا۔ جس میں قرآنی متن (ہر موضوع کے تحت آیات دی گئی ہیں) کو بنیاد بنایا جائے گا۔

موضوعات

۱۔ عقائد

۱۔ توحید

۱۔ لوکان فیھما ـــ عما یصفون۔ الانبیاء: ۲۲

۲۔ والٰھکم الٰہ واحد ـــ الرحمٰن الرحیم۔ البقرۃ: ۱۶۳

۳۔ ان فی خلق ـــ لقوم یعقلون۔ البقرۃ: ۱۶۴

ب ۔ رسالت

۱۔ ما کان لبشر . . . کنتم تدرسون — آل عمران : ۷۹
۲۔ وما اٰتٰکم الرسول . . . . العقاب ۔ — الحشر : ۷
۳۔ الیوم اکملت لکم دینکم . . . دیناً ۔ — المائدہ : ۳

ج ۔ آخرت

۱۔ یا یھا الناس . . . کل زوج بھیج ۔ — الحج : ۵
۲۔ واتقوا یومًا . . . ربکم عظیم ۔ — البقرۃ : ۴۸ ، ۴۹

احادیث

عن عمر بن الخطاب قال قال رسول اللہ صلعم حین سئل عن الایمان ان تؤمن باللہ و ملائکتہ و کتبہ و رسلہ والیوم الاخر و تؤمن بالقدر خیرہ و شرہ ۔ (متفق علیہ)
عن العباس بن عبدالمطلب قال قال رسول صلعم ذاق طعم الایمان من رضی باللہ ربا و بالا سلام دینا و بمحمد رسولا ۔ (مسلم)

۲ ۔ **عبادات**

۱۔ سورۃ المؤمنون کی پہلی گیارہ آیات
قد افلح المؤمنون . . . . ھم فیھا خلدون ۔ — المؤمنون : ۱-۱۱

احادیث

۱۔ عن ابن عمر رضی اللہ عنہما قال قال رسول اللہ صلی اللہ علیہ و سلم بنی الاسلام علی خمس شھادۃ ان لا الہ الّا اللہ و ان محمداً عبدہ و رسولہ و اقام الصلواۃ و ایتاء الزکاۃ و الحج و صوم رمضان ۔ (متفق علیہ)
۲۔ و فی حدیث جبریل قال رسول اللہ صلی اللہ علیہ وسلم : الاسلام ان تشھد ان لا الہ الا اللہ و ان محمداً رسول اللہ و تقیم الصلاۃ و تؤتی الزکاۃ و تصوم رمضان و تحج البیت ان استطعت الیہ سبیلا (متفق علیہ)

۳ ۔ **امر بالمعروف و نھی عن المنکر :**

۱۔ دعوت دین کی ضرورت و اھمیت
کنتم خیر امۃ اخرجت للناس . . . الفسقون ۔ — آل عمران : ۱۱۰

ب ۔ طریق دعوت

۱۔ ادع الی سبیل ربک . . . بالمھتدین ۔ — النحل : ۱۲۵
۲۔ و لتکن منکم امۃ یدعون . . . المفلحون — آل عمران : ۱۰۴

احادیث

عن ابی سعید الحدری عن رسول الله صلعم قال من رأی منکم منکرا فلیغیره بیده فان لم یستطع فبلسانه فان لم یستطع فبقلبه و ذالک اضعف الایمان (رواه مسلم)

۲- عن عبدالله بن عمر قال قال رسول الله صلی الله علیه و سلم الا کلکم راع و کلکم مسئول عن رعیته فالامام الذی علی الناس راع و هو مسئول عن رعیته و الرجل راع علی اهل بیته و هو مسئول عن رعیته و المرآة راعیة علی بیت زوجها و ولده و هی مسئولة عنهم و عبدالرجل راع علی مال سیده و هو مسئول عنه الافکلکم راع و کلکم مسئول عن رعیته (متفق غلیه)

۴- اتحاد امت

۱- و اعتصموا بحبل الله جمیعا . . . لعلکم تهتدون آل‌عمران : ۱۰۳
۲- انما المؤمنون اخوة . . . ترحمون الحجرات : ۱۰
۳- قل یا اهل الکتٰب . . . مسلمون آل عمران : ۶۴
۴- و لا تسبو الذین . . . یعملون الانعام : ۱۰۹

احادیث

۱- عن انس قال قال رسول الله صلی‌الله‌علیه وسلم والذی نفسی بیده لایؤمن عبد حی یحب لا خیه ما یحب لنفسه - (متفق علیه)

۲- عن النعمان بن بشیر قال قال رسول الله صلی الله علیه و سلم تری المؤمنین فی تراحمهم و توادهم و تعاطفهم کمثل الجسد اذا شتکی عضو تداعی له سائر الجسد بالسهر و الحمٰی (متفق علیه)

۵- کسب حلال

۱- کلوا من طیبٰت . . . فقد هوٰی طٰه : ۸۱
۲- قل من حرم . . . یعلمون الاعراف : ۳۲
۳- و لا تأکلوا . . . تعلمون البقره : ۱۸۸

احادیث

۱- عن النعمان بن بشیر قال قال رسول الله صلی الله علیه وسلم الحلال بین و الحرام بین و بینهما مشتبهات لا یعلمهن کثیر من الناس فمن اتقی الشبهات فقد استبرا لدینه و عرضه و من وقع فی الشبهات وقع فی الحرام کالراعی یرعی حول الحمی یوشک ان یرتع فیه الا و ان لکل ملک حمًی الا وان حمی الله محارمه الا و ان فی الجسد مضغة اذا صلحت صلح الجسد و اذا فسدت فسد الجسد کله الاوهی القلب (متفق علیه)

۔ عن ابی هریره قال قال رسول الله صلی الله علیه وسلم ان الله تعالیٰ طیب لا یقبل الاطیبا و ان الله تعالیٰ امر المؤمنین بما امر به المرسلین فقال تعالیٰ یایها الرسل کلوا من الطیبت واعملوا صالحا و قال تعالیٰ: یایها الذین امنوا کلوا من طیبت ما رزقنکم ثم ذکر الرجل یطیل السفر اشعث اغبر یمد یدیه الا السماء یا رب یا رب و مطعمه حرام و مشربه حرام و ملبسه حرام و غذی بالحرام فانی یستجاب لذلک۔ (رواه مسلم)

۶۔ حقوق العباد

۱۔ بنیادی انسانی حقوق

جان کا تحفظ

من اجل ذالک . . . لمسرفون — المائده: ۳۲

(ب) ملکیت کا تحفظ

یا یهاالذین . . . بکم رحیما — النساء: ۲۹

(ج) عزت کا تحفظ

یا یها الذین . . . تواب رحیم — الحجرات: ۱۲

(د)

لا اکراه فی الدین . . . علیم — البقره: ۲۵۶

(ح) حق مساوات

یا یها الناس۔ حبیراً — الحجرات: ۱۳

(خ) معاشی تحفظ

والذین فی اموالهم ۔۔۔ المحروم — المعارج: ۲۰-۲۴

(ل)۔ اهلیت کی بنیاد پر مواقع کے حصول کا حق

ان الله یأمرکم ان ۔۔۔ بصیراً — النساء: ۵۸

م۔ حصول انصاف کا حق:

یایها الذین امنوا ۔۔۔ خبیراً — النساء: ۱۳۵

۷۔ حقوق نسواں

۱۔ من عمل ۔۔۔ یعملون — النحل: ۹۷

۲۔ ان المسلمین۔ ۔۔۔ عظیماً — الاحزاب: ۳۵

۳۔ للرجال نصیب ۔۔۔ مفروضاً — النساء: ۷

۸۔ غیر مسلموں سے تعلقات:

۱۔ لاینهٰکم الله ۔۔۔ الظٰلمون — الممتحنه: ۸-۹

۲۔ وان جنحوا للسلم ۔۔۔ العلیم — الانفال: ۶۱

احادیث

۹ - خطبہ حجۃ الوداع :
ترجمہ اور اہم نکات

نوٹ :
مذکورہ بالا تمام عنوانات کی قرآنی آیات کی تفسیر میں ہر عنوان کے تحت احادیث دے دی گئی ہیں -

(۲) اسوۂ حسنہ (سیرت طیبہ) ۱۰ نمبر

سیرت طیبہ کے موجودہ حصے کو جوں کا توں برقرار رکھا جائے -

۱- ولادت با سعادت
۲- قبل از نبوت مکّی زندگی
۳- بعثتِ نبوی
۴- دعوت و تبلیغ اور اس کی مشکلات
۵- ہجرت مدینہ
۶- مؤاخات اور میثاقِ مدینہ
۷- غزواتِ نبوی
۸- حجۃ الوداع
۹- وصال

(۳) اسلامی تہذیب

۱ - برّصغیر پر اسلامی تہذیب کے اثرات

۱- تہذیب کی تعریف
۲- اسلام سے پہلے برّصغیر کی تہذیبی حالت
۳- اسلامی تہذیب کے عوامل و عناصر
۴- برّصغیر پر اسلامی تہذیب کے معاشرتی، اخلاقی، سیاسی اور سماجی اثرات

۲- اسلامی تہذیب کے عالمی اثرات

۱- اسلام کی علمی تحریک
۲- فکری اثرات
۳- معاشرتی اور سماجی اثرات
۴- عصری تہذیبی تصادم

Ethical Behaviour (in Lieu of Islamic Studies (for Non Muslim Students.)

Ethical Behaviour:

1. **Meaning and Scope of Ethics.**
2. **Relation of Ethics with**
   a) Religion b) Science c) Law
3. **Historical Development of Morality:**
   a. Instinctive Moral Life
   b. Customary Morality
   c. Reflective Morality
4. **Moral Theories**:
   a. Hedonism (Mill)
   b. Intuitionism (Butler)
   c. Kant's Moral Theory
5. **Moral Ethics and Society:**
   a. Freedom and Responsibility
   b. Tolerance
   c. Justice
   d. Punishment (Theories of Punishment)
6. **Moral Teachings of Major Religious**.
   a. Judaism
   b. Christianity
   c. Islam
7. **Professional Ethics**
   a. Medical Ethics
   b. Ethics of Students
   c. Ethics of Teachers
   d. Business
8. **Islam's attitude towards Minorities**

Books Recommended:

1. William Lille. An Introduction to Ethics. London Methuen & Co.
2. Titus, H.H. Ethics in Theory and Practice' N.Y. Thomas Y. Crowel.
3. Hill, Thomas, Ethics in Theory and Practice N.Y. Thomas Y.Crowel.
4. Ameer Ali, S. The Ethics of Islam Culture: Noor Library Publisher.
5. Donaldson. D.M.Studies in Muslim Ethics London.
6. Sayed S.M.A.(Tr) Ta' aruf-e-Akhlaqiat. Karachi. BCC&T, Kar. University.

Islamic Studies Elective

نصاب کا خاکہ

paper -I (3rd year)

کل نمبر ۱۰۰

۱۔ مطالعہ قرآنِ حکیم	
تعارفِ تفسیر	۱۰
متنِ قرآنِ حکیم	۳۰
قرآنِ حکیم کا موضوعاتی مطالعہ	۳۰
عربی گرائمر	۱۵
معروضی سوال	۱۵

نصاب کی تفصیل

۱۔ تعارفِ تفسیر:

تفسیر کا معنی و مفہوم اور اس کی ضرورت و اہمیت، تفسیر کی اقسام (تفسیر بالماثور، تفسیر بالرائے) تفسیر قرآن مجید کے مآخذ، قرآن مجید، حدیث نبوی ﷺ، صحابہ کرامؓ، تابعینؒ، قرآن مجید کا دیگر کتب سماویہ سے موازنہ

۲۔ متنِ قرآنِ حکیم (لفظی ترجمہ و تشریح)

سورۃ البقرۃ (آخری بیس رکوع) سورۃ النور (مکمل)

اس حصے میں پندرہ پندرہ نمبروں پر مشتمل ہر سورۃ سے ترجمہ لفظی یا بامحاورہ امتحان میں آئے گا۔

۳۔ موضوعاتی مطالعہ قرآن مجید

(i)۔ سورۃ البقرۃ کے مندرجہ ذیل عنوانات:

قصاص و دیت، حرمت خمر و میسر، ایلاء، طلاق، خلع، عدت، رضاعت، مہر، انفاق فی سبیل اللہ، حرمت ربوا، جہاد فی سبیل اللہ، مہلت و حرمت کے سال، وحدانیت،

(ii)۔ سورۃ النور کے مندرجہ ذیل عنوانات:

صفاتِ الٰہی، حدود اللہ (حد زنا، حد قذف) لعان، واقعہ افل، ابلاغیات کا اسلامی تصور، (اعشاعت فحش کی مخالفت) احکام پردہ، استیذان، اطاعت رسول ﷺ، مجلس نبوی ﷺ کے آداب۔ حکومتِ اللہ کا قیام، حسن معاشرت، مذہب کی اہمیت، فساد فی الارض کی شکلیں۔

۴۔ عربی قواعد کا سوال شامل نصاب متن قرآن میں سے پوچھا جائے گا

مندرجہ ذیل عنوانات پیش نظر رکھے جائیں گے:

جملہ اسمیہ وفعلیہ، مرکب اضافی، مرکب توصیفی، اسم الفاعل، اسم المفعول، فعل ماضی، مضارع، امر ونہی، ان واخواتھا کی پہچان اور استعمال، ثلاثی مجرد ثلاثی مزید فیہ کے ابواب کی پہچان۔

۵۔ معروضی سوال پرچہ الف کے تمام اجزاء پر مشتمل ہوگا

مجوزہ کتب:

محمد مالک کاندھلوی	اصولِ تفسیر
عبدالماجد دریابادی	مطالعہ قرآن
محمد میاں صدیق	قرآنِ حکیم: ایک نظر میں
احمد یار	مضامینِ قرآن
ابنِ کثیر	تفسیر القرآن العظیم
مفتی محمد شیخ	معارف القرآن
سید ابوالاعلیٰ مودودی	تفہیم القرآن
پیر محمد کرم شاہ	ضیاء القرآن
عبدالماجد دریابادی	تفسیر ماجدی
	پولیمر تفسیر قرآن

BA(4th Year)

نصاب علوم اسلامیہ بی۔اے (اختیاری)

نصاب کا خاکہ

پرچہ

حدیث شریف، فقہ، سیرۃ النبی ﷺ و تاریخ اسلام کل نمبر ۱۰۰

۱۔تعارف حدیث	۱۰نمبر
۲۔تعارف فقہ	۱۰نمبر
۳۔مطالعہ حدیث	۲۰نمبر
۴۔مطالعہ فقہ	۲۰نمبر
۵۔سیرۃ النبی ﷺ	۳۰نمبر
۶۔معروضی سوال (لازمی)	۱۰نمبر

نصاب کی تفصیل

paper II (for 4th year)

پرچہ

حدیث شریف ۔ فقہ ۔ سیرۃ النبی ﷺ و تاریخ اسلام

1۔ تعارف حدیث

حجیت حدیث: (منکرین حدیث کے اعتراضات کا مختصر جائزہ)

حفاظت حدیث: عہد نبوی عہد صحابہ کرامؓ اور عہد تابعینؒ ۔ (تمام ادوار پر مبنی صرف ایک جامع سوال ہی پوچھا جائے گا۔

2۔ تعارف فقہ

مندرجہ ذیل عنوانات:

مآخذ شریعت: (کتاب ۔ سنت ۔ اجماع ۔ قیاس) تمام مآخذ پر مبنی صرف ایک جامع سوال ہی پوچھا جائے گا۔

عصر حاضر میں اجتہاد کی ضرورت و اہمیت۔

3۔ مطالعہ حدیث

عَنِ ابْنِ عُمَرَ لَا حَسَدَ اِلَّا عَلٰی اِثْنَیْنِ رَجُلٌ اٰتَاهُ اللّٰهُ الْقُرْاٰنَ فَهُوَ یَقُوْمُ بِهٖ اٰنَاءَ لَّیْلِ وَ اٰنَاءَ النَّهَارِ وَ رَجُلٌ اٰتَاهُ اللّٰهُ مَالًا فَهُوَ یُنْفِقُ مِنْهُ اٰنَاءَ اللَّیْلِ وَ اٰنَاءَ النَّهَارِ ..... (رواہ البخاری و مسلم)

عَنْ اَنَسٍ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ ثَلٰثٌ مَنْ کُنَّ فِیْهِ وَجَدَ حَلَاوَةَ الْاِیْمَانِ اَنْ یَّکُوْنَ اللّٰهُ وَرَسُوْلُهٗ اَحَبَّ اِلَیْهِ مِمَّا سِوَاهُمَا وَاَنْ یُّحِبَّ الْمَرْءَ لَا یُحِبُّهٗ اِلَّا لِلّٰهِ وَاَنْ یَّکْرَهَ اَنْ یَّعُوْدَ فِی الْکُفْرِ کَمَا یَکْرَهُ اَنْ یُّقْذَفَ فِی النَّارِ ..... (رواہ البخاری و مسلم)

عَنْ صَفْوَانِ بْنِ سُلَیْمٍ اَنَّهٗ قِیْلَ لِرَسُوْلِ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ اَیَکُوْنُ الْمُؤْمِنُ جَبَانًا قَالَ نَعَمْ فَقِیْلَ لَهٗ اَیَکُوْنُ الْمُؤْمِنُ بَخِیْلًا قَالَ نَعَمْ فَقِیْلَ لَهٗ اَیَکُوْنُ الْمُؤْمِنُ کَذَّابًا قَالَ لَا ..... (رواہ مالک ۔ البیہقی فی شعب الایمان مرسلا)

عَنْ اَبِیْ هُرَیْرَةَ اَنَّ رَسُوْلَ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ قَالَ لَا یَزْنِی الزَّانِیْ حِیْنَ یَزْنِیْ وَهُوَ مُؤْمِنٌ وَّلَا یَسْرِقُ السَّارِقُ حِیْنَ یَسْرِقُ وَهُوَ مُؤْمِنٌ وَّلَا یَشْرَبُ الْخَمْرَ حِیْنَ یَشْرَبُهَا وَهُوَ مُؤْمِنٌ فَلَا یَنْتَهِبُ نُهْبَةً یَّرْفَعُ النَّاسُ اِلَیْهِ فِیْهَا اَبْصَارَهُمْ حِیْنَ یَنْتَهِبُهَا وَهُوَ مُؤْمِنٌ وَّلَا یَغُلُّ اَحَدُکُمْ حِیْنَ یَغُلُّ وَهُوَ مُؤْمِنٌ فَاِیَّاکُمْ اِیَّاکُمْ ..... (رواہ البخاری و مسلم)

عَنْ عَبْدِ اللّٰهِ بْنِ عُمَرَ قَالَ رَجُلٌ یَا نَبِیَّ اللّٰهِ مَنْ اَکْیَسُ النَّاسِ وَاَحْزَمُ النَّاسِ قَالَ اَکْثَرُهُمْ ذِکْرًا لِلْمَوْتِ وَاَکْثَرُهُمْ اِسْتِعْدَادًا اُولٰٓئِکَ الْاَکْیَاسُ ذَهَبُوْا بِشَرَفِ الدُّنْیَا وَکَرَامَةِ الْاٰخِرَةِ

عَنْ عَمْرِو بْنِ عَوْفٍ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ فَوَاللّٰهِ لَا الْفَقْرَ اَخْشٰى عَلَيْكُمْ وَلٰكِنْ اَخْشٰى عَلَيْكُمْ اَنْ تُبْسَطَ عَلَيْكُمُ الدُّنْيَا كَمَا بُسِطَتْ عَلٰى مَنْ كَانَ قَبْلَكُمْ فَتَنَافَسُوْهَا كَمَا تَنَافَسُوْهَا وَتُهْلِكَكُمْ كَمَا اَهْلَكَتْهُمْ ..... (رواه البخاری و مسلم)

عَنْ اَنَسٍ اَنَّ النَّبِيَّ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ قَالَ مَنْ كَانَتْ نِيَّتُهُ طَلَبَ الْاٰخِرَةِ جَعَلَ اللّٰهُ غِنَاهُ فِيْ قَلْبِهٖ وَجَمَعَ لَهٗ شَمْلَهٗ وَاَتَتْهُ الدُّنْيَا وَهِيَ رَاغِمَةٌ وَمَنْ كَانَتْ نِيَّتُهُ طَلَبَ الدُّنْيَا جَعَلَ اللّٰهُ الْفَقْرَ بَيْنَ عَيْنَيْهِ وَشَتَّتَ عَلَيْهِ اَمْرَهٗ وَلَا يَاْتِيْهِ مِنْهَا اِلَّا مَا كُتِبَ لَهٗ ..... (رواه الترمذی)

عَنْ اَبِيْ هُرَيْرَةَ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ لَا تَغْبِطَنَّ فَاجِرًا بِنِعْمَةٍ فَاِنَّكَ لَا تَدْرِيْ مَا هُوَ لَاقٍ بَعْدَ مَوْتِهٖ اِنَّ لَهٗ عِنْدَ اللّٰهِ قَاتِلًا لَا يَمُوْتُ يَعْنِي النَّارَ .....

عَنْ اَبِيْ هُرَيْرَةَ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ اِذَا نَظَرَ اَحَدُكُمْ اِلٰى مَنْ فُضِّلَ عَلَيْهِ فِي الْمَالِ وَالْخَلْقِ فَلْيَنْظُرْ اِلٰى مَنْ هُوَ اَسْفَلَ مِنْهُ ..... (رواه البخاری و مسلم)

عَنْ اَبِيْ هُرَيْرَةَ اَنَّ رَسُوْلَ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ قَالَ ثَلٰثٌ مُنْجِيَاتٌ وَثَلٰثٌ مُهْلِكَاتٌ فَاَمَّا الْمُنْجِيَاتُ فَتَقْوَى اللّٰهِ فِي السِّرِّ وَالْعَلَانِيَةِ وَالْقَوْلُ بِالْحَقِّ فِي الرِّضَاءِ وَالسَّخَطِ وَالْقَصْدُ فِي الْغِنَاءِ وَالْفَقْرِ وَاَمَّا الْمُهْلِكَاتُ فَهَوًى مُتَّبَعٌ وَشُحٌّ مُطَاعٌ وَاِعْجَابُ الْمَرْءِ بِنَفْسِهٖ وَهِيَ اَشَدُّهُنَّ ..... (رواه البیهقی فی شعب الایمان)

عَنِ ابْنِ مَسْعُوْدٍ عَنِ النَّبِيِّ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ قَالَ لَا تَزُوْلُ قَدَمَا ابْنِ اٰدَمَ يَوْمَ الْقِيٰمَةِ حَتّٰى يُسْئَلَ عَنْ خَمْسٍ عَنْ عُمُرِهٖ فِيْمَا اَفْنَاهُ وَعَنْ شَبَابِهٖ فِيْمَا اَبْلَاهُ وَعَنْ مَالِهٖ مِنْ اَيْنَ اكْتَسَبَهٗ وَفِيْمَا اَنْفَقَهٗ وَمَاذَا عَمِلَ فِيْمَا عَلِمَ ..... (رواه الترمذی)

عَنْ اَبِيْ هُرَيْرَةَ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ مَنْ يَّاْخُذُ عَنِّيْ هٰؤُلَاءِ الْكَلِمَاتِ فَيَعْمَلُ بِهِنَّ اَوْ يُعَلِّمُ مَنْ يَّعْمَلُ بِهِنَّ؟ قُلْتُ اَنَا يَا رَسُوْلَ اللّٰهِ ﷺ فَاَخَذَ بِيَدِيْ فَعَدَّ خَمْسًا فَقَالَ اتَّقِ الْمَحَارِمَ تَكُنْ اَعْبَدَ النَّاسِ وَارْضَ بِمَا قَسَمَ اللّٰهُ لَكَ تَكُنْ اَغْنَى النَّاسِ وَاَحْسِنْ اِلٰى جَارِكَ تَكُنْ مُؤْمِنًا وَاَحِبَّ لِلنَّاسِ مَا تُحِبُّ لِنَفْسِكَ تَكُنْ مُسْلِمًا وَلَا تُكْثِرِ الضَّحِكَ فَاِنَّ كَثْرَةَ الضَّحِكِ تُمِيْتُ الْقَلْبَ ..... (رواه احمد و الترمذی)

عَنْ حُذَيْفَةَ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ لَا تَكُوْنُوْا اِمَّعَةً تَقُوْلُوْنَ اِنْ اَحْسَنَ النَّاسُ اَحْسَنَّا وَاِنْ ظَلَمُوْا ظَلَمْنَا وَلٰكِنْ وَطِّنُوْا اَنْفُسَكُمْ اِنْ اَحْسَنَ النَّاسُ اَنْ تُحْسِنُوْا وَاِنْ اَسَاءُوْا فَلَا تَظْلِمُوْا ..... (رواه الترمذی)

عَنِ ابْنِ عُمَرَ قَالَ سَمِعَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ الْمِنْبَرَ فَنَادٰى بِصَوْتٍ رَفِيْعٍ يَا مَعْشَرَ مَنْ اَسْلَمَ بِلِسَانِهٖ وَلَمْ يُفْضِ الْاِيْمَانُ اِلٰى قَلْبِهٖ لَا تُؤْذُوا الْمُسْلِمِيْنَ وَلَا تُعَيِّرُوْهُمْ وَلَا تَتَّبِعُوْا عَوْرَاتِهِمْ فَاِنَّهٗ مَنْ يَتَّبِعْ عَوْرَةَ اَخِيْهِ الْمُسْلِمِ يَتَّبِعِ اللّٰهُ عَوْرَتَهٗ وَمَنْ يَتَّبِعِ اللّٰهُ عَوْرَتَهٗ يَفْضَحْهُ وَلَوْ فِيْ جَوْفِ رَحْلِهٖ ..... (رواه الترمذی)

عَنْ سَهْلِ بْنِ سَعْدٍ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ مَنْ يَضْمَنُ لِيْ مَا بَيْنَ لَحْيَيْهِ وَمَا بَيْنَ رِجْلَيْهِ اَضْمَنُ لَهُ الْجَنَّةَ ..... (رواه البخاری)

عَنِ ابْنِ عُمَرَ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ لَا تُكْثِرُوا الْكَلَامَ بِغَيْرِ ذِكْرِ اللّٰهِ فَاِنَّ كَثْرَةَ الْكَلَامِ بِغَيْرِ ذِكْرِ اللّٰهِ قَسْوَةٌ لِّلْقَلْبِ وَاِنَّ اَبْعَدَ النَّاسِ مِنَ اللّٰهِ الْقَلْبُ الْقَاسِيْ

عَنْ سَلْمَانَ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ اِنَّ رَبَّكُمْ حَيِيٌّ كَرِيْمٌ يَسْتَحْيِيْ مِنْ عَبْدِهٖ اِذَا رَفَعَ يَدَيْهِ اَنْ يَرُدَّهُمَا صِفْرًا ..... (رواه الترمذی و ابوداؤد)

عَنْ عَبْدِاللّٰهِ بْنِ عُمَرَ قَالَ نَهٰى رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ عَنْ بَيْعِ الثِّمَارِ حَتّٰى يَبْدُوَ صَلَاحُهَا نَهَى الْبَائِعَ وَالْمُشْتَرِيَ ..... (رواه البخاری و مسلم)

وَفِيْ رِوَايَةٍ لِمُسْلِمٍ نَهٰى عَنْ بَيْعِ النَّخْلِ حَتّٰى تَزْهُوَ وَعَنِ السُّنْبُلِ حَتّٰى يَبْيَضَّ وَيَأْمَنَ الْعَاهَةَ

عَنْ اَبِيْ هُرَيْرَةَ اَنَّ رَسُوْلَ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ مَرَّ عَلٰى صُبْرَةِ طَعَامٍ فَاَدْخَلَ يَدَهٗ فِيْهَا فَنَالَتْ اَصَابِعُهٗ بَلَلًا فَقَالَ مَا هٰذَا يَا صَاحِبَ الطَّعَامِ؟ فَقَالَ اَصَابَتْهُ السَّمَاءُ يَا رَسُوْلَ اللّٰهِ! قَالَ اَفَلَا جَعَلْتَهٗ فَوْقَ الطَّعَامِ حَتّٰى يَرَاهُ النَّاسُ، مَنْ غَشَّ فَلَيْسَ مِنَّا ..... (رواه مسلم)

عَنْ وَاثِلَةَ بْنِ الْاَسْقَعِ قَالَ سَمِعْتُ رَسُوْلَ اللّٰهِ صَلَّى اللّٰهُ وَسَلَّمَ يَقُوْلُ مَنْ بَاعَ عَيْبًا لَمْ يُبَيِّنْهُ لَمْ يَزَلْ فِيْ مَقْتِ اللّٰهِ وَلَمْ تَزَلِ الْمَلٰئِكَةُ تَلْعَنُهٗ ..... (رواه ابن ماجه)

عَنْ عَلِيٍّ قَالَ نَهٰى رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ عَنْ بَيْعِ الْمُضْطَرِّ وَعَنْ بَيْعِ الْغَرَرِ وَعَنْ بَيْعِ الثَّمَرَةِ قَبْلَ اَنْ تُدْرِكَ ..... (رواه ابوداؤد)

عَنْ اَبِيْ سَعِيْدٍ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ التَّاجِرُ الصَّدُوْقُ الْاَمِيْنُ مَعَ النَّبِيِّيْنَ وَالصِّدِّيْقِيْنَ وَالشُّهَدَاءِ ..... (رواه الترمذی والدارمی والدار قطنی و رواه ابن ماجه)

-: 6 :-

عَنْ اَبِیْ هُرَیْرَةَ اَنَّ رَسُوْلُ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ قَالَ لَا تَلَقَّوُا الرُّکْبَانَ لِبَیْعٍ وَّلَا یَبِیْعُ بَعْضُکُمْ عَلٰی بَیْعِ بَعْضٍ وَّلَا تَنَاجَشُوْا وَلَا یَبِیْعُ حَاضِرٌ لِبَادٍ وَّلَا تُصَرُّوْا الْاِبِلَ وَالْغَنَمَ فَمَنِ ابْتَاعَهَا بَعْدَ ذَالِكَ فَهُوَ بِخَیْرِ النَّظَرَیْنِ بَعْدَ اَنْ یَّحْلُبَهَا اِنْ رَضِیَهَا اَمْسَكَهَا وَاِنْ سَخِطَهَا رَدَّهَا وَصَاعًا مِّنْ تَمْرٍ ..... (رواہ البخاری و مسلم)

عَنْ عُمَرَ عَنِ النَّبِیِّ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ قَالَ الْجَالِبُ مَرْزُوْقٌ وَالْمُحْتَكِرُ مَلْعُوْنٌ

..... (ابن ماجہ۔ دارمی)

عَنْ اَبِیْ هُرَیْرَةَ رَفَعَهُ اِنَّ اللّٰهَ عَزَّوَجَلَّ یَقُوْلُ اَنَا ثَالِثُ الشَّرِیْكَیْنِ مَالَمْ یَخُنْ اَحَدُهُمَا صَاحِبَهٗ فَاِذَا خَانَهٗ خَرَجْتُ بَیْنَهُمَا ..... (ابوداؤد)

عَنْ عَبْدِاللّٰهِ ابْنِ عُمَرَ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ مَنْ اَخَذَ مِنَ الْاَرْضِ شَیْئًا بِغَیْرِ حَقِّهٖ خُسِفَ بِهٖ یَوْمَ الْقِیَامَةِ اِلٰی سَبْعِ اَرْضِیْنَ

عَنْ اَبِیْ هُرَیْرَةَ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ مَامِنْ مُّسْلِمٍ یَغْرِسُ غَرْسًا اَوْ یَزْرَعُ زَرْعًا فَیَاْكُلُ مِنْهُ طَیْرٌ اَوْ اِنْسَانٌ اَوْ بَهِیْمَةٌ اِلَّا كَانَ لَهٗ صَدَقَةٌ ..... (رواہ البخاری و مسلم)

عَنْ اَبِیْ سَعِیْدٍ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ اَفْضَلُ الْجِهَادِ مَنْ قَالَ كَلِمَةُ حَقٍّ عِنْدَ سُلْطَانٍ جَائِرٍ ..... (رواہ الترمذی و ابوداؤد و ابن ماجہ)

عَنِ ابْنِ عُمَرَ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ السَّمْعُ وَ الطَّاعَةُ عَلَی الْمَرْءِ الْمُسْلِمِ فِیْمَا اَحَبَّ وَ كَرِهَ مَالَمْ یُؤْمَرْ بِمَعْصِیَةٍ فَاِذَا اُمِرَ بِمَعْصِیَةٍ فَلَا سَمْعَ وَلَا طَاعَةَ .....

عَنْ خُرَیْمِ ابْنِ فَاتِكٍ قَالَ صَلّٰی رَسُوْلُ اللّٰهِ علیہ وسلم صَلٰوةَ الصُّبْحِ فَلَمَّا انْصَرَفَ قَامَ قَائِمًا فَقَالَ عُدِلَتْ شَهَادَةُ الزُّوْرِ بِالْاِشْرَاكِ بِاللّٰهِ ثَلٰثَ مَرَّاتٍ ثُمَّ قَرَاَ فَاجْتَنِبُوا الرِّجْسَ مِنَ الْاَوْثَانِ وَاجْتَنِبُوْا قَوْلَ الزُّوْرِ حُنَفَاءَ لِلّٰهِ غَیْرَ مُشْرِكِیْنَ بِهٖ

وَعَنْ عَبْدِاللّٰهِ بْنِ مَسْعُودٍ قَالَ: قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ "عَلَيْكُمْ بِالصِّدْقِ فَإِنَّ الصِّدْقَ يَهْدِيْ اِلَى الْبِرِّ، وَإِنَّ الْبِرَّ يَهْدِيْ اِلَى الْجَنَّةِ، وَمَا يَزَالُ الرَّجُلُ يَصْدُقُ وَيَتَحَرَّى الصِّدْقَ حَتّٰى يُكْتَبَ عِنْدَ اللّٰهِ صِدِّيْقًا وَإِيَّاكُمْ وَالْكِذْبَ فَإِنَّ الْكِذْبَ يَهْدِيْ اِلَى الْفُجُوْرِ وَإِنَّ الْفُجُوْرَ يَهْدِيْ اِلَى النَّارِ، وَمَا يَزَالُ الرَّجُلُ يَكْذِبُ وَيَتَحَرَّى الْكِذْبَ حَتّٰى يُكْتَبَ عِنْدَاللّٰهِ كَذَّابًا وَفِيْ رِوَايَةِ الْمُسْلِمِ قَالَ: اِنَّ الصِّدْقَ بِرٌّ وَإِنَّ الْبِرَّ يَهْدِيْ اِلَى الْجَنَّةِ وَإِنَّ الْكِذْبَ فُجُوْرٌ وَإِنَّ الْفُجُوْرَ يَهْدِيْ اِلَى النَّارِ.

وَعَنْ اُمِّ كُلْثُوْمٍ قَالَتْ: قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ "لَيْسَ الْكَذَّابُ الَّذِيْ يُصْلِحُ بَيْنَ النَّاسِ وَيَقُوْلُ خَيْرًا وَيَنْمِيْ خَيْرًا.

وَعَنِ الْمُغِيْرَةِ، قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ: "اِنَّ اللّٰهَ حَرَّمَ عَلَيْكُمْ عُقُوْقَ الْاُمَّهَاتِ وَوَادَ الْبَنَاتِ، وَمَنْعٌ وَهَاتِ وَكَرِهَ لَكُمْ قِيْلَ وَقَالَ، وَكَثْرَةَ السُّؤَالِ، وَإِضَاعَةَ الْمَالِ".

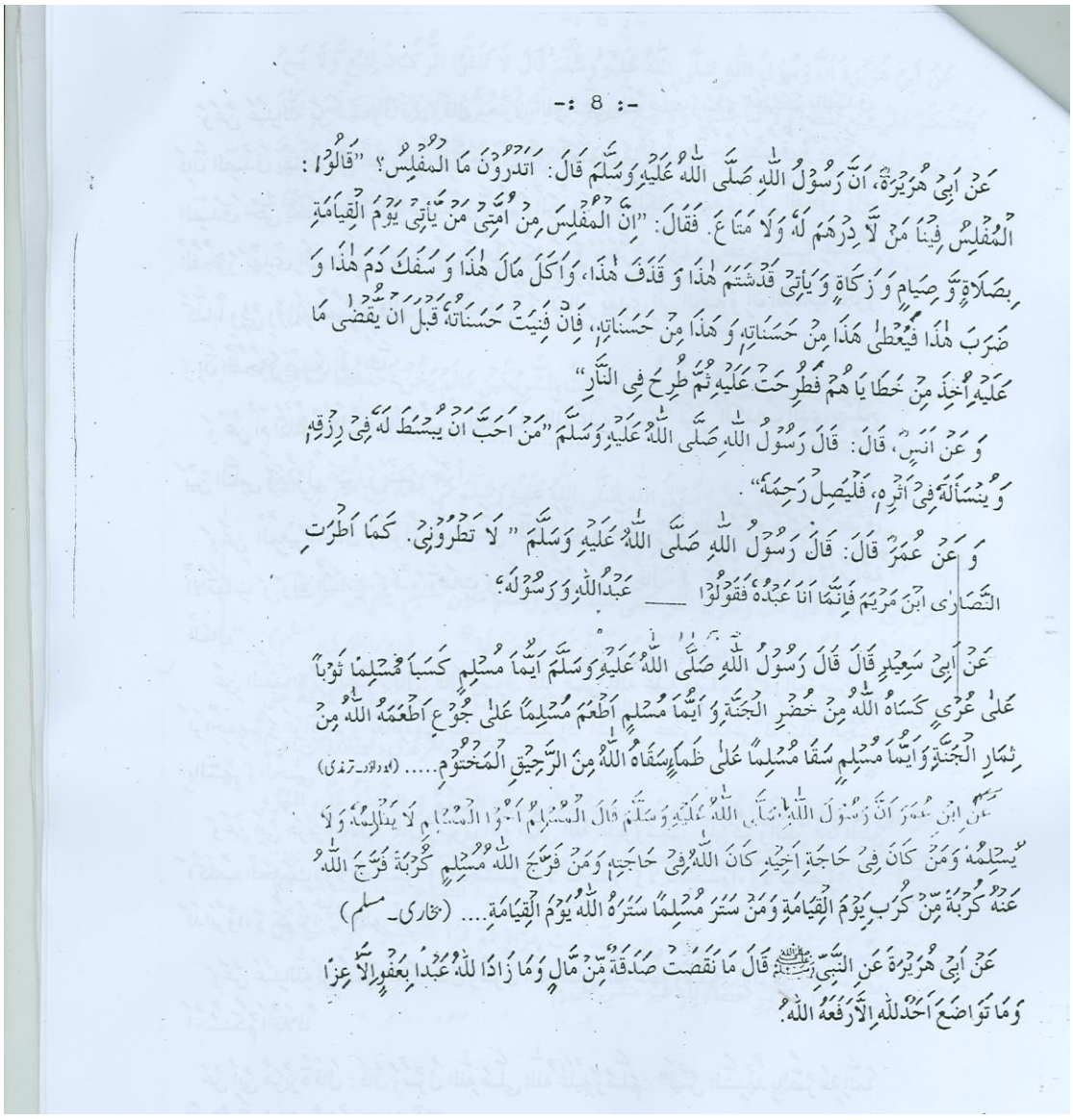
عَنِ النُّعْمَانِ بْنِ بَشِيْرٍ، قَالَ: قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ: تَرَى الْمُؤْمِنِيْنَ فِيْ تَرَاحُمِهِمْ وَتَوَادِّهِمْ وَتَعَاطُفِهِمْ كَمَثَلِ الْجَسَدِ اِذَا اشْتَكٰى عُضْوًا تَدَاعٰى لَهٗ سَائِرُ الْجَسَدِ بِالسَّهَرِ وَالْحُمّٰى".

وَعَنْ اَبِيْ هُرَيْرَةَ، قَالَ: قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ: "اِيَّاكُمْ وَالظَّنَّ فَإِنَّ الظَّنَّ اَكْذَبُ الْحَدِيْثِ، وَلَاتَحَسَّسُوْا وَلَا تَجَسَّسُوْا وَلَا تَنَاجَشُوْا وَلَا تَحَاسَدُوْا، وَلَا تَبَاغَضُوْا، وَلَا تَدَابَرُوْا، وَكُوْنُوْا عِبَادَ اللّٰهِ اِخْوَانًا".

وَعَنْ عَبْدِاللّٰهِ بْنِ عُمَرَ، قَالَ: قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ: "اِنَّ مِنْ اَحَبِّكُمْ اِلَيَّ اَحْسَنُكُمْ اَخْلَاقًا".

عَنْ اَبِيْ هُرَيْرَةَ قَالَ: قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ: "لَيْسَ الشَّدِيْدُ بِالصُّرْعَةِ اِنَّمَا الشَّدِيْدُ الَّذِيْ يَمْلِكُ نَفْسَهٗ عِنْدَ الْغَضَبِ".

وَعَنْهُ قَالَ: قَالَ رَسُوْلُ اللّٰهِ صَلَّى اللّٰهُ عَلَيْهِ وَسَلَّمَ: "يَقُوْلُ اللّٰهُ تَعَالٰى: اَلْكِبْرِيَاءُ رِدَائِيْ، وَالْعَظَمَةُ اِزَارِيْ: فَمَنْ نَازَعَنِيْ وَاحِدًا مِنْهُمَا اَدْخَلْتُهُ النَّارَ".



-: 8 :-

عَنْ اَبِیْ هُرَیْرَةَ، اَنَّ رَسُوْلَ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ قَالَ: اَتَدْرُوْنَ مَا الْمُفْلِسُ؟ "قَالُوْا: الْمُفْلِسُ فِیْنَا مَنْ لَّا دِرْهَمَ لَهٗ وَلَا مَتَاعَ. فَقَالَ: "اِنَّ الْمُفْلِسَ مِنْ اُمَّتِیْ مَنْ یَّاْتِیْ یَوْمَ الْقِیَامَةِ بِصَلَاةٍ وَّ صِیَامٍ وَ زَكَاةٍ وَیَاْتِیْ قَدْ شَتَمَ هٰذَا وَ قَذَفَ هٰذَا، وَاَكَلَ مَالَ هٰذَا وَ سَفَكَ دَمَ هٰذَا وَ ضَرَبَ هٰذَا فَیُعْطٰی هٰذَا مِنْ حَسَنَاتِهٖ وَ هٰذَا مِنْ حَسَنَاتِهٖ، فَاِنْ فَنِیَتْ حَسَنَاتُهٗ قَبْلَ اَنْ یُّقْضٰی مَا عَلَیْهِ اُخِذَ مِنْ خَطَایَاهُمْ فَطُرِحَتْ عَلَیْهِ ثُمَّ طُرِحَ فِی النَّارِ"

وَ عَنْ اَنَسٍ، قَالَ: قَالَ رَسُوْلُ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ "مَنْ اَحَبَّ اَنْ یُّبْسَطَ لَهٗ فِیْ رِزْقِهٖ وَ یُنْسَاَلَهٗ فِیْ اَثَرِهٖ، فَلْیَصِلْ رَحِمَهٗ".

وَ عَنْ عُمَرَ قَالَ: قَالَ رَسُوْلُ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ " لَا تُطْرُوْنِیْ. كَمَا اَطْرَتِ النَّصَارٰی ابْنَ مَرْیَمَ فَاِنَّمَا اَنَا عَبْدُهٗ فَقُوْلُوْا ـــــ عَبْدُ اللّٰهِ وَ رَسُوْلُهٗ.

عَنْ اَبِیْ سَعِیْدٍ قَالَ قَالَ رَسُوْلُ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ اَیُّمَا مُسْلِمٍ كَسَا مُسْلِمًا ثَوْبًا عَلٰی عُرْیٍ كَسَاهُ اللّٰهُ مِنْ خُضْرِ الْجَنَّةِ وَ اَیُّمَا مُسْلِمٍ اَطْعَمَ مُسْلِمًا عَلٰی جُوْعٍ اَطْعَمَهُ اللّٰهُ مِنْ ثِمَارِ الْجَنَّةِ وَاَیُّمَا مُسْلِمٍ سَقٰی مُسْلِمًا عَلٰی ظَمَاٍ سَقَاهُ اللّٰهُ مِنَ الرَّحِیْقِ الْمَخْتُوْمِ..... (ابوداؤد۔ترمذی)

عَنِ ابْنِ عُمَرَ اَنَّ رَسُوْلَ اللّٰهِ صَلَّی اللّٰهُ عَلَیْهِ وَسَلَّمَ قَالَ الْمُسْلِمُ اَخُو الْمُسْلِمِ لَا یَظْلِمُهٗ وَلَا یُسْلِمُهٗ وَمَنْ كَانَ فِیْ حَاجَةِ اَخِیْهِ كَانَ اللّٰهُ فِیْ حَاجَتِهٖ وَمَنْ فَرَّجَ اللّٰهُ مُسْلِمٍ كُرْبَةً فَرَّجَ اللّٰهُ عَنْهُ كُرْبَةً مِّنْ كُرَبِ یَوْمِ الْقِیَامَةِ وَمَنْ سَتَرَ مُسْلِمًا سَتَرَهُ اللّٰهُ یَوْمَ الْقِیَامَةِ.... (بخاری۔ مسلم)

عَنْ اَبِیْ هُرَیْرَةَ عَنِ النَّبِیِّ ﷺ قَالَ مَا نَقَصَتْ صَدَقَةٌ مِّنْ مَّالٍ وَمَا زَادَ اللّٰهُ عَبْدًا بِعَفْوٍ اِلَّا عِزًّا وَمَا تَوَاضَعَ اَحَدٌ لِلّٰهِ اِلَّا رَفَعَهُ اللّٰهُ.

4۔ مطالعہ فقہ

قدوری کی کتاب الصلوٰۃ۔ترجمہ وتشریح (اب باب کے خلاصے پر مبنی سوال نہیں پوچھا جائے گا)۔

قدوری کی کتاب الصلوٰۃ میں سے مندرجہ ذیل ابواب خارج کر دئے گئے ہیں۔

باب صلوٰۃ الکسوف والخسوف۔باب صلوۃ الخوف۔ باب الشہید۔باب قیام شہر رمضان۔

5۔ سیرت النبی ﷺ وتاریخ اسلام

(الف)

نبی اکرم ﷺ کے خصائص وامتیازات:

مطالعہ سیرۃ النبی ﷺ کی اہمیت۔دعوت دین میں نبی کریم ﷺ کا طریق کار اور مساعی جمیلہ۔امن عالم سیرت طیبہ کی روشنی میں۔

(ب)

تاریخ اسلام:

1۔ مسلمانوں کے عروج کے اسباب واثرات

مسلمانوں کے زوال کے اسباب واثرات

2۔ دور بنو عباس اور ہسپانوی مسلمانوں کے رفاہی وفلاحی کارنامے

3۔ طب۔طبیعیات۔کیمیا۔ریاضی۔فلکیات میں مسلمانوں کے کارنامے۔(ان تمام شعبوں پر مبنی صرف ایک جامع سوال ہی پوچھا جائے گا۔الگ الگ شعبہ جات نہیں پوچھے جائیں گے۔

BA-Islamic Studies (Optional)

نصاب آپشنل اسلامیات بی۔اے　　کل نمبر ۱۰۰

(الف) قرآن پاک کا تعارفی مطالعہ　　۴۰

۱۔حقیقت وحی

۲۔تدوین قرآن مجید، عہد رسالت ﷺ، عہد صدیقی، عہد عثمانی، غیر مسلموں کی شہادتیں

۳۔اعجاز القرآن

۴۔حفاظت قرآن مجید

۵۔مکی اور مدنی سورتیں

۶۔القرآن　　۵۰

سورۃ الفتح، سورۃ الحجرات بمعہ ترجمہ وتفسیر کے ساتھ

(ب) تاریخ اسلام (خلافت راشدہ)　　۳۰

۷۔حضرت ابوبکر صدیقؓ کی سیرت وانکی زندگی، نظام حکومت اور کارنامے

۸۔حضرت عمرؓ کی سیرت، کردار، انتظام سلطنت اور کارنامے

۹۔حضرت عثمان غنیؓ کی سیرت، کردار نظام حکومت اور کارنامے

۱۰۔حضرت علیؓ کی زندگی، کردار، کردار، انتظام سلطنت اور کارنامے

۱۱۔خلافت راشدہ کی خصوصیات اور اس کے مذہبی اور کارنامے

نوٹ: جنگوں کی تفصیلات خارج از نصاب ہیں۔

Journalism(Elective)

	Marks
Part-I ابلاغ اور صحافت کی مختلف صورتیں	100
Part-II صحافت کا ماضی اور حال	100
Total Marks	200

(Syllabi and Courses of Reading)

Part-I

ابلاغ اور صحافت کی مختلف صورتیں

۱۔ ابلاغ اور صحافت

(الف) ابلاغ کیا ہے ابلاغ کی اہمیت

(ب) ابلاغ کے مختلف انداز اور ذرائع

ا۔ زبان ۲۔ اشارے اور علامتیں ۳۔ چہرے کے تاثرات

ج) ابلاغ عام اور اس کے مختلف ذرائع

ا۔ اخبارات اور رسائل ۲۔ ریڈیو ۳۔ ٹیلی ویژن ۴۔ کتب، پمفلٹ، پوسٹر ۵۔ فلم ۶۔ جلسہ ہائے عام

(د) ابلاغ عام اور صحافت کا فرق

۲۔ مطبوعہ صحافت۔۔۔۔۔۔ اخبارات و رسائل

(الف) مطبوعہ صحافت کی اہمیت اور ذمہ داریاں **(ب)** طباعت کی موجودہ اقسام **(ج)** اخباری ادارہ کی تنظیم (د) خبروں کے حصول کے ذرائع

(ر) فن خبر نویسی

ا۔ خبر کی تعریف ۲۔ خبر کی اہمیت اور زبان ۳۔ خبر کے لوازمات اور خبری اقدار۔

(س) اداریہ

ا۔ تعریف اور اہمیت ۲۔ اہمیت ۳۔ اقسام اور اسالیب

(ط) کالم

ا۔ تعریف اور اہمیت ۲۔ اقسام ۳۔ مقاصد

(ع) فیچر۔

ا۔ تعریف اور اہمیت ۲۔ اہمیت ۳۔ اقسام اور اسلوب

(غ) مراسلات

ا۔ اہمیت ۲۔ انتخاب اور ایڈیٹنگ کے اصول

(ق) مطبوعہ صحافت کی اہمیت اور ذمہ داریاں۔

۳۔ ریڈیو بحیثیت ذریعہ ابلاغ عام:

(الف) ریڈیو کی اہمیت اور کردار **(ب)** ریڈیو پاکستان کے حالات حاضرہ کے پروگرام اور خبریں **(ج)** ریڈیو پاکستان کے موسیقی کے پروگرام

(د) ریڈیو ڈرامہ و فیچرز کا تنقیدی جائزہ (ر) سماجی و اقتصادی ترقی میں ریڈیو کا کردار **(س)** اخبار اور ریڈیو خبروں کا فرق

۴۔ ٹیلی ویژن بحیثیت ذریعہ ابلاغ عام:

(الف) ٹیلی ویژن کی اہمیت اور اثرات **(ب)** قومی تعمیر و ترقی میں ٹیلی ویژن کا کردار **(ج)** ٹیلی ویژن ڈرامے کا تنقیدی جائزہ

(د) ٹیلی ویژن خبریں اور حالات حاضرہ کے پروگرام (ر) ٹیلی ویژن کے تعلیمی اور تربیتی پروگرام **(س)** اخبار، ریڈیو اور ٹیلی ویژن خبروں کا فرق

۵۔ زبان کے مختلف استعمال:

(الف) روزمرہ بول چال کی زبان **(ب)** ادبی زبان (ج) علمی زبان **(د)** سائنسی زبان (ر) صحافتی زبان

Part--II

صحافت کا ماضی اور حال

۱۔طباعت واشاعت:

(الف) دنیا میں طباعت و اشاعت کی مختصر تاریخ (ب) خبر نویسی کا آغاز اور ارتقاء (ج) امریکہ و برطانیہ کے ابتدائی اخبارات کا جائزہ (د) برصغیر میں طباعت اور خبر نویسی کا آغاز

۲۔برصغیر کی صحافت --- آزادی سے قبل

(الف) برصغیر کے ابتدائی انگریزی اور اردو اخبارات **(ب)** 1857ء کی جنگ آزادی میں صحافت کا کردار **(ج)** سرسید احمد خاں کی صحافت

(د) محمد علی جوہر کی صحافت۔ **(س)** ظفر علی خاں کی صحافت **(ش)** تحریک پاکستان میں مسلم اخبارات کا کردار

۳۔صحافت پاکستان میں۔

(الف) پاکستانی صحافت کے فنی ارتقاء کا جائزہ **(ب)** نمایاں قومی روزنامے ---فنی اور معنوی معیار کا جائزہ **(ج)** نمایاں قومی ہفت روزے ---فنی اور معنوی معیار کا جائزہ

(د) نمایاں قومی ماہنامے۔ڈائجسٹ اور تخصیص یافتہ رسائل کا جائزہ **(ر)** پاکستانی اخبارات کا ترقی یافتہ ممالک کے اخبارات سے موازنہ

۴۔آزادی صحافت--- قوانین اور حکومتی رویہ

(الف) آزادی صحافت کا تصور اور اہمیت **(ب)** سیفٹی ایکٹ اور ڈیفنس آف پاکستان رولز کے نمایاں پہلو۔ **(ج)** پریس اینڈ پبلیکیشنز آرڈیننس 1963ء کے نمایاں پہلو

(د) رجسٹریشن آف پرنٹنگ پریس اینڈ پبلیکیشنز آرڈیننس 1988ء

(ر) صحافت پر مختلف اقسام کے دباؤ

ا۔اشتہارات ۲۔سیاسی و مذہبی گروہ ۳۔شعبہ ہائے تعلقات عامہ ۴۔نیوز پرنٹ اور دوسری سہولتوں کا فقدان

(س) حکومت اور صحافت -----تعلقات اور کشمکش

۵۔صحافت کے لیے ضابطہء اخلاق کی ضرورت

(الف) ضابطہء اخلاق کی ضرورت اور اہمیت **(ب)** پاکستان میں ضابطہء اخلاق کی تیاری اور اس پر عملدرآمد کی کوشش

(ج) ہماری مطبوعہ اور الیکٹرانک صحافت کا موجودہ رویہ اور صحافتی ضابطہء اخلاق

۶۔مطبوعہ صحافت اور الیکٹرانک صحافت کا موازنہ

(الف) اخبارات و رسائل، ریڈیو اور ٹیلی ویژن کی بطور ذریعہ ابلاغ عام اہمیت کا تقابلی جائزہ **(ب)** مقابلہ و سابقت اور ان میں ہونے والی ترقی و تبدیلی

(ج) قومی ضرورتیں اور تقاضے اور اخبارات و رسائل، ریڈیو اور ٹیلی ویژن کا کردار۔

JOURNALISM (Optional)

Appendix "A"

Paper: Journalism and Production of Newspaper:

(Outlines of Tests) Marks 100

Appendix "B"

(Syllabi and Courses of Reading)

Paper: Journalism and Production of Newspaper:

What is Journalism? Importance of Journalism in relation to society. How a newspaper is produced, from collection of news upto the preparation of copy Printing, Role of advertising in the life of a newspaper and society.

Description of the Pakistan Press.

Books Recommended:

1. Fann-i- Sahafat by Dr.Abdus Salam Khurshid (Relevant Chapters)

پرچہ: صحافت اور اخبار کی اشاعت کل نمبر:۔ 100

نصاب

صحافت کیا ہے؟ معاشرتی روابط میں صحافت کی اہمیت، اخبار کی تیاری و اشاعت، خبروں کے حصول تدوین اور اخباری مرحلہ وار تیاری، طباعت و اشاعت، صحافت میں اشتہارات کی اہمیت، پاکستانی پریس کی مختصر تاریخ

مجوزہ کتب:

فن صحافت ڈاکٹر عبدالسلام خورشید (متعلقہ ابواب)

MATHEMATICS

SCHEME OF STUDIES:

FOR /B.Sc

1. There shall be three different courses of studies in Mathematics.
   i) A-Course of Mathematics
   ii) B-Course of Mathematics
   iii) General Mathematics.

2. Each course will have status of one subject.
3. It is recommended that following division be made.
   1. A-Course of Mathematics
      (i) Differential and Integral Calculus
      (ii) Complex Numbers and Analytic Geometry.
      (iii) Infinite series, differential equations Laplace transform.
      (iv) (a) Linear Programming and application of the Differential Calculus
      (b) Application of the Integral Calculus

   2. B-Course of Mathematics
      (i) Group Theory and Linear Algebra
      (ii) Vector Analysis and Statics
      (iii) Number Theory, Topology and Inner Product Spaces
      (iv) Numerical Methods and Dynamics
   3. General Mathematics
      (i) Complex Number and Linear Algebra
      (ii) Differential and Integral Calculus
      (iii) Applications of Differential and Integral Calculus and Analytic Geometry of these dimensions.
      (iv) (a) Numerical Methods and Infinite Series
      (b) Linear Programming and Differential Equations

COURSE CONTENTS

B.Sc.

A-COURSE OF MATHEMATICS

PAPER-I DIFFERENTIAL AND INTEGRAL CALCULUS

Note: Students have to attempt 5 questions out of 8. Selecting 3 from Part-I and 2 from Part-II

Section-I (5 out of 8)

Differential Calculus

A review of real number system. Absolute values. Upper and lower bounds of variables and functions. Right and left limits of functions. Theorems about limits. Continuous and discontinuous functions and their graphs. Inverse of a function. Inverse hyperbolic functions and their graphs. Definition of derivatives in terms of left and right limits. Geometrical interpretation of derivatives. Relationship between continuity and differentiability. Derivatives, Partial derivatives, Differentials and related rates. Higher derivatives of functions. Leibnitz's theorem. Rolle's theorem. Lagrange's mean value theorem Increasing and decreasing functions. Cauchy's mean value theorem Taylors and Maclaurin's theorems in finite and infinite form and their use' in expansion of functions in series. Indetenninate forms and L'Hospital's rule.

Section-II (3 out of 8)

Integral Calculus

Riemann's definition of definite integral as the limit of a sum. Properties of definite integrals. Fundamental theorem of calculus. Techniques of integration and reduction formulae.

Text Book

Recommended Books

1. Zia-ul-Haq, Calculus and analytical Geometry, Carvan Book, 2001.
2. H. Anton, Calculus. ~ edition (1998). John Wiley and Sons, New York.

3. C.H. Edwards and D.E. Penney, Calculus and Analytical Geometry, (Latest Edition). Prentice Hall, Inc.
4. E.H. Swokowski, Calculus with Analytical Geometry (Latest Edition). PWS Publishers, Boston, Massachusetts.
5. G.B. Thomas, Jr. and R.L. Finney, Calculus and Analytical Geometry. (Latest Edition). Addison-Wesley Publishing Company.

(A) PAPER-II

COMPLEX NUMBERS AND GEOMETRY

Note: Students have to attempts 5 questions out of 8. Selecting 2 from section-I and 3 from section-II.

Section-I (3 out of 8)

Complex Numbers

Complex numbers and their, polar representation. Euler's formula. De Moivres' theorem and its applications. Trigonometric and hyperbolic functions. Exponential and logarithmic functions'. Separation of complex valued functions into real and imaginary parts. Summation of series.

Section-II (5 out of 8)

Analytical Geometry

Two-dimensional Analytical Geometry (2 out of 8)

Translation and rotation of axes. General equation of the second degree and the classification of conic sections. Conic sections in polar coordinates. Tangents and normals. Pedal equation of curves. Tracing of polar curves.

Three dimensional Analytical Geometry (3 out of 8)

Direction cosines and ratios. Angles between two lines Standard forms of equations of planes and lines. Intersection of planes and lines. Distances between points, lines and planes. Spherical, polar and cylindrical coordinate systems. Standard form of the equation

of a sphere, cylinder, cone, ellipsoid, paraboloid and hyperboloid. Symmetry, intercepts and sections of a surface. Tangent planes and normals.

Recommended Books

1. Dar, K. H, Mathematical Techniques, The Carvan Book House, 2001.
2. Zia ul Haq, Calculus and Analytic Geometry, The Carvan Book House, 2001.
3. C.H. Edwards and D.E. Penney, Calculus and Analytical Geometry, (Latest Edition). Prentice Hall, Inc.
4. E.H. Swokowski, Calculus with Analytical Geometry (Latest Edition). PWS Publishers, Boston, Massachusetts.
5. H. Anton, Calculus. (Latest Edition). John Wiley and Sons, New York.
6. G.B. Thomas, Jr. and R.L. Finney, Calculus and Analytical Geometry. (Latest Edition). Addison-Wesley Publishing Company.

Math- A.Course

PAPER-III

INFINITE SERIES AND DIFFERENTIAL EQUATIONS

Note: There will be 8 questions in all. The candidates would be required to attempt 5 questions. Selecting 2 from section-I and 3 from section-II.

Section-I: (3 out of 8)

Infinite Series

Sequences of numbers and their convergence. Algebra of convergent sequences. Infinite series and their convergence. Convergence tests for infinite series: Comparison, quotient, ratio, root & integral tests. Absolute and conditional convergence. Interval of convergence and radius of convergence.

Section-II (5 out of 8)

Differential Equations

Definition of differential equation & types of differential equations and their formation. Different methods of solving first order ordinary differential equations. The Bernoulli, Ricatti and Clairaut equations. Families of curves Orthogonal trajectories. Initial and

boundary value problems. Application of first order differential equation in problems of decay & growth of population of dynamics and logistics. Second and higher order linear differential equations with constant coefficients and their methods of solutions. Cauchy-Euler equations, system of second order linear differential equations. Method of undetermined coefficient. Method of variation of parameters. Reduction of order. Laplace transform and its applications.

PAPER-IV

(a) Linear Programming and application of the Differential Calculus

(b) Application of the Integral Calculus

OR

A Computer Language C / C++

Note: This option is withdraw with effect from session 2006-2007 onwards.

Note: Students have to attempt 5 questions out of 8. Selecting 3 from section-I and 2 from section-II.

Section-I : (5 out of 8)

(a) Applications of Differential Calculus 4/5

Curves and their Cartesian, polar and parametric representations. Asymptotes Maxima Minima. Points of infiexion and their applications. Singular points. Curve tracing. Curvature, centre and radius of curvature. Functions of several variables and partial derivatives with special reference to the case of two variables. Eulers theorem and implicit functions. Maximum and minimum of functions of one and two variables with applications. Approximation, Equation of tangent plane and normal line to a surface.

(b) Linear Programming 1/5

Introduction to Operations Research in general and in particular to linear programming. Simplex method. Assignment model.

Section-II: (3 out of 8)

Application of Integral Calculus:

Rectification and quadrature. Simple cases of double and triple integrals. Volumes and area of surfaces of revolution.

Books Recommended

1. W. A. Spivey Linear Programming, McMillan Co.
2. Hamday A. Taha, Operations Research
3. Hiller, Introduction to Operations Research
4. A. Sultan Linear programming, Academic press.
5. Dar, K. H. Mathematical Techniques, Carvan Book House, 2001.

B-COURSE OF MATHEMATICS

PAPER-I GROUP THEORY AND LINEAR ALGEBRA

Note: Students have to attempt 5 questions out of 8. Selecting 2 from section-I and 3 from section-II.

Section-I (3 out of 8)

Group Theory

Definition and examples of groups. Groups of residue classes. Cyclic groups Order of a group and order of an element of a group. Subgroups. Cosets. The Lag ranges theorem (Connection between the order of a group and order of its elements) and its applications. Introduction to Permutations: even and odd permutations. Cydes; length of cycles, transpositions.

Section-II (5 out of 8)

Linear Algebra:

Fields. Vector spaces and subspaces with their examples. Linear dependence and independence. Bases and dimensions of finitely spanned vector spaces. Linear transformation of vector spaces. Motivation of matrices through a system of linear homogeneous and non-homogeneous equations. Elementary row and column operations on matrices. Algebra of matrices. Determinants of matrices, their properties and evaluation Vanous kinds of matrices. Matrix of a linear transformation. Rank of a matrix. Evaluation of rank and inverse of matrices Solution of homogeneous and non-homogenous linear equation. (Gaussian Elimination method, Gauss-Jordan Method)

Books Recommended

1. C.H.Edwards, Jr. and D.E. Penny, Elementary Linear Algebra. (Latest Edition). Prentice-Hall, Interational Edition.
2. H. Anton, Elementary Linear Algebra, (Latest Edition). J. Wiley. G. Hadley, Linear Algebra. (Latest Edition). Addison-Wesley.

   J.B.Fraleigh. First Course in Abstract Algebra. (Latest Edition), Addison and Wesley.

   K.H. Dar. First step to Abstract Algebra. (2^{nd} edition 1998). Feroz Sons Pvt.
3. A. Majeed. Group Theory

4. K.L. Mir, Linear Algebra, Ilmi Kutab Khana.

PAPER-II

VECTOR ANALYSIS AND STATICS

Note: Students have to attempt 5 questions out of 8. Selecting 2 from section-I and 3 from section-II.

Section-I: (3 out of 8)

Vector Analysis

Three dimensional vectors, coordinate systems and their bases. Scalar and vector triple products. Differentiation and Integration of vectors. Scalar and vector point functions, concepts of gradient, divergence and curl operators alongwith their applications.

Section-II: (5 out of 8)

Statics

Composition and resolution of forces. Particles in equilibrium. Parallel forces; moments, couples. General conditions of equilibrium of coplanar forces. Principle of virtual work, Friction. Centre of gravity.

Books Recommended

1. A.E. Coulson, An Introduction to Vectors. (Latest Edition). Longmans, Green and Co.
2. G.D. Smith, Vector Analysis. (Latest Edition). Oxford University Press.
3. K. L. Mir, Vector Analysis. (Latest Edition). Ilmi Kitab Khana.
1. M.N. Talpur, Calculus with Analytic Geometry.
2. Collinson. Introductory Mechanics, (Latest Edition). Edward Arnold (Publishers) Ltd., London.
6. L. Synge and B.A. Griffith, (Latest Edition). Principles of Mechanics. McGraw-Hill.
7. Chester, Mechanics, (Latest Edition). George Allen and Unwin.
8. R. Whitworth and Dyke. Guide to Mechanics, (Latest Edition). Macmillan.
9. Q. K. Ohori, Introduction to Mechanics (West Pakistan Publishing Co., Ltd., Lahore).

PAPER-III

NUMBER THEORY, INNER PRODUCT SPACES & TOPOLOGY

Note: Students have to attempt 5 questions out of 8. Selecting 2 from section-I and 3 from section-II.

Section-I (3 out of 8)

Number theory

Divisibility Euclid's theorem (Division Algorithm) Common and greatest common divisors. Least common multiple. Theory of Primes. Linear Equations. Diophantine Equations.

Section-II (5 out of 8)

Topology & Inner Product Spaces:

Definition and Examples of Topology & Topological Spaces. Open and closed sets in topological spaces. Neighbourhood. Limit point, interior, exterior, boundary and closure of a set in a topological space. Definition and examples of metric spaces, open balls, open sets and neighbourhood in a metric space. Interior Exterior boundry and closure of a set in a metric space. Definition and examples of Inner Product Spaces, Orthognality, Orthognal and Orthonormal system, Orthognal metrices.

PAPER-IV

NUMERICAL METHODS AND DYNAMICS

Note: Students have to attempt 5 questions out of 8. Selecting 3 from section-I and 2 from section-II.

Section-I: (5 out of 8)

Dynamics of a Particle

Motion in a straight line. Uniformly accelerated and resisted motion. Velocity, acceleration and their components in cartesian and polar coordinates; tangential and normal components, radial and transverse components. Relative motion. Angular velocity. Conservative forces. Projectiles. Central forces and orbits. Simple harmonic

motion. Damped and forced vibrations.

Section-II: (3 out of 8)

Numerical Methods

Introduction to Numerical Analysis. Numerical Solution of Algebraic and Transcendental Equations: graphical method, bisection method, iteration method, Newton-Raphson method, secant method and method of false position. System of Linear equations: Gauss-seidel and Jacobi methods. Numerical integration: Trapezoidal and Simpson's rules. (If possible computer programming may be used for problem solving.)

Books Recommended

1. Robert -W. Horn beck, Numerical Methods, Quantum Publishers.
2. Alestair Wood, Introduction to Numerical Analysis, Addison Wesley.
3. M. lqbal, Numerical Analysis, National Book Foundation.
4. S.A. Bhatti, N.A. Bhatti, Numerical Methods
5. S.M. Fahfa, Introduction to Point set topology.
6. B. Ahmad, General Topology, 1998.
7. S.Manzur Hussain, Introduction to theory of Numbers.

GENERAL MATHEMATICS

PAPER-I

COMPLEX NUMBER, LINEAR ALGEBRA AND ANALYTIC GEOMETRY

Note: Students have to attempt 5 questions out of 8. Selecting 2 from section-I and 3 from section-II.

Section-I: (3 out of 8)

Complex Number System

Complex numbers and Polar form. De-Moivres' Theorem. n nth roots of complex numbers. Hyperbolic functions. Sum of trigonometric series.

Section-II (5 out of 8)

Linear Algebra and Analytic Geometry

Matrices: rank and inverse of a matrix. Linear transformations and their matrices. Determinants. System of linear equations. Analytic Geometry of two Dimension. Translation and rotation of axis, Properties of tangents and normals. Polar equation of conic. Pedal equation. Tracing of polar curves.

PAPER-II

DIFFERENTIAL & INTEGRAL CALCULUS

Note: Students have to attempt 5 questions out of 8. Selecting 3 from section-I and 2 from section-II.

Section-I (5 out of 8)

Differential Calculus

Techniques of finding limits. Continuity of a function Differentiability. Indeterminate forms, use of Rolle's theorem, mean value theorems (Lag ran~e and Cauchy). Taylor and Maclaurins series. Derivatives, Higher Derivatives and Partial Derivatives. Related rates.

Section-II: (3 out of 8)

Integral Calculus

Techniques of integration, Definite integral as limit of a sum, Evaluation of a definite integral by definition, Improper integrals, reduction formulae.

PAPER-III

APPLICATION OF DIFFERENTIAL, INTEGRAL CALCULUS AND ANALYTIC GEOMETRY OF THREE DIMENSIONS

Note: Students have to attempt 5 questions out of 8. Selecting 3 from section-I and 2 from section-II.

Section-I: (5 out of 8)

Application of differential and Integral Calculus:

Asymptotes, maxima and minima of a function of one and two variables. Curvature and center of curvature, rectification, quadrate, Eulers theorem, Chain Rule, Total derivative, Equation of tangent, Plane and normal lines to surfaces volume and surface area of revolution, Simple cases of double and triple integrals.

Section-II: (3 out of 8)

Analytic Geometry:

Direction cosines and Ratios. Angle between two lines. Standard form of equations of planes and lines. Intersection of planes and lines. Distance between points, lines and planes. Spherical. Polar and cylindrical coordinate systems. Standard form of the equations of a sphere, cylinder, cone, ellipsoid, paraboloid and hyperboloid. Symmetry and intercepts of a surface. Tangent planes and normals.

PAPER-IV

(a) Numerical Methods and Infinite Series

(b) Linear Programming and Differential Equations

Note: Students have to attempt 5 questions out of 8. Selecting 2 from section-I and 3 from section-II.

Section-I: (3 out of 8)

Numerical Methods and Infinite Series:

Introduction to infinite series and tests for their convergence and divergence. Absolute and conditional convergence. Introduction to Numerical Analysis. Numerical Solution of algebraic and transcendental equations: bisection method, Newton-Raphson method.

Section-II (5 out of 8)

Linear Programming & Differential Equations

Introduction to linear programming. Simplex methods and their examples from real life. Differential equations of first order. Variables, Sapurable, Homogenous equation, Exact equation, Linear differential equation, Bernoulli's equation, orthogonal trajectories, Diff.

Eq. of 2^{nd} and higher order, Cauchy Euler equation, methods of D-operator and method of variation of parameters. Method of undetermined Coefficient.

Books Recommended for General Mathematics (Papers I to IV)

1. S.T.Tan. Applied Mathematics. For the Managerial, life, and social sciences,
2. H. Anton, Elementry Linear Algebra. (7^{th} edition, 1997). Wiley.
3. Fizino and G. Ladas, Ordinary, Differential Equations with Modern Applications, (Latest Edition). Wadsworth.
4. E. Kreyszig, Advanced Engineering Mathematics,(Latest Edition). J. Wiley.
5. C.W. Evans, advanced Engineering Mathematics. (Latest Edition). Chapman and Hall.
6. H. Anton, Calculas, (Latest Edition). John Wiley and Sons, New York.
7. E. Kreyosing, Advanced Engineering Mathematics, (Latest Edition), J. Wiley.
8. M. lqbal Numerical Analysis. (Latest Edition). National Book Foundation.
9. Faiz Ahmad and M.A. Rana Elements of Numerical Analysis, (Latest Edition). National Book Foundation.
10. S.M.Yousaf, Mathematical Methods.
11. Hamday A. Taha, Operations Research.
12. A. Sultan Linear Programming, Academic Press.

Other Books

1. Calculas S.M.Yousaf
2. Mathematical Methods S.M.Yousaf
3. Introduction to Mechanics S.M.Yousaf
4. Topology Ch. M. Amin
5. Introduction Set Topology S.M.Yousaf
6. Metric Spaces by Z.R. Bhatti
7. Elementary Theory of Numbers by Sayyad Manzoor Hussain
8. Elementary Numerical Analysis by Dr. M. Iqbal
9. Vector Analysis by Dr. Munawwar Hussain

University of Gujrat

The following Syllabus for Pakistan Studies has been prepared in accordance with the criteria announced by the Higher Education Commission and Lead Universities.

نصاب مطالعہ پاکستان (لازمی) سال سوم

کل نمبر ۴۰ وقت ۲ گھنٹے

سیکشن ۱ (اس سیکشن سے چھ میں سے تین سوالات کا انتخاب کریں)

۱۔ نظریہ پاکستان

۱۔قیام پاکستان کے اغراض ومقاصد (مسلمانوں کیلئے علیحدہ وطن ، اسلامی فلاحی ریاست کا قیام)

۲۔نظریہ پاکستان: (تعریف وتوضیح) نظریہ پاکستان اقبال اور قائداعظم کے ارشادات کی روشنی میں

۲۔نظریہ پاکستان کا تاریخی پہلو:

۱۔ملی اصلاحی تحریکیں (شیخ احمد سرہندی، شاہ ولی اللہ، سرسید احمد خان)

۲۔تعلیمی کوششیں (علی گڑھ، دیوبند، انجمن حمایت اسلام، اور دیگر مقامی تعلیمی ادارے، سندھ مدرسہ، اسلامیہ کالج پشاور)

۳۔سیاسی جدوجہد: آئینی اصلاحات (منٹو مارلے، مانٹیگو چیمر فورڈ، معاہدہ لکھنؤ، تحریک خلافت، خطبہ الہ آباد، قائداعظم کے چودہ نکات)

۳۔تحریک پاکستان: ۱۔انتخابات ۱۹۳۷ اور کانگریس حکومت کا رویہ ۲۔قرارداد پاکستان ۳۔۱۹۴۶ کے انتخابات اور انتقال اقتدار

۴۔کابینہ مشن پلان ۵۔۳ جون پلان ۶۔قیام پاکستان ۷۔ابتدائی مشکلات

سیکشن ۲ (اس سیکشن سے دو میں سے ایک سوال کا انتخاب کریں)

۱۔پاکستان اور نظام اسلام کے نفاذ کی کوشش:

۱۔قرارداد مقاصد ۲۔۱۹۵۶، ۱۹۶۲، ۱۹۷۳ کے آئین کی اسلامی دفعات ۳۔نفاذ شریعت، اقدامات اور مکمل اسلامی معاشرے کا قیام

۲۔ارض پاکستان:

۱۔غرافیائی وحدت محل وقوع، جغرافیائی اہمیت، دیہی اور شہری علاقے ۲۔قدرتی وسائل ۳۔زراعت

۴۔صنعت ۵۔افرادی قوت ۶۔پاکستان، عالم اسلام اور ہمسایہ ممالک

حوالہ کتب

۱۔آئین پاکستان (ڈاکٹر صفدر محمود لاہور) ۲۔پاکستان ناگزیر تھا (ڈاکٹر حسن ریاض کراچی) ۳۔تحریک پاکستان (ڈاکٹر صفدر محمود لاہور)

۴۔پاکستان کی اہم سیاسی جماعتیں (پروفیسر خلیل اللہ کراچی) ۵۔پاکستان کی خارجہ پالیسی (پروفیسر خلیل اللہ کراچی)

۶۔تاریخ پاک وہند (صاحبزادہ عبدالرسول) ۷۔تاریخ ہندو پاکستان قدیم سلطنت دہلی (سید معین الحق کراچی)

۸۔جدوجہد پاکستان (ڈاکٹر حسن ریاض کراچی) ۹۔حصول پاکستان (احمد سعید)

۱۰۔A Short Story of Pakistan (آئی ایچ قریشی) ۱۱۔Struggle for Pakistan (آئی ایچ قریشی)

یونیورسٹی آف گجرات

Persian

نصاب کا خاکہ 2005ء ومابعد

Paper - I (3rd Year)

نصاب **فارسی** اختیاری (سال سوم بی۔اے پارٹ ون)

کل نمبر:100

کتاب

گنج دانش ، گنج ادب — پرچہ الف

کچھ کمی اور کچھ اضافے کے ساتھ

Appendix "A"

Short Questions	20 نمبر
شاعران ونثر ونگاران کے احوال وآثار میں سے	
نثری پیراگراف کا اردو میں ترجمہ	20 نمبر
ترجمہ وتشریح اشعار	20 نمبر
تنقیدی سوالات شاعر ومضمون نویس 10 + 10	20 نمبر
دستور زبان فارسی وعلم وبیان	10 نمبر
اردو میں ترجمہ	10 نمبر
(Unseen Passage)	
کل نمبر	100نمبر

Appendix "B"

حصہ نثر

1۔ سعدی شیرازی — **انتخاب از گلستان سعدی**

منتخب حکایات

باب اوّل — حکایت نمبر 7,5,2,1

☆ پادشاہی راشنیدم کہ بہ کشتن — تا — چہ بدروی خاک

☆ یکی ازملوک خراسان محمود سبکتگین — تا — بر آید فلاں نماند

☆ سر ہنگ زادہ ای رابہ درسرای — تا — بہتر کہ آفتاب سیاہ

☆ پادشاہی باغلامی عجمی درکشتی — تا — انتظارش بدر

باب ہفتم

☆ یکی از وزراء پسری کودن تا ہنوز زر باشد

☆ پادشاہی پس بہ ادیبی داد تا انبان می کند، حامی ادیم

☆ مرد کی را چشم درد خاست تا بہ کارگاہ حریر

باب ہشتم

☆ مال از بہر آسائش تا مال کرد و نخورد

☆ دو کس رنج بیہودہ تا آموخت و نکرد

☆ علم از بہر دین پروردن تا بہر دنیا خوردن

☆ سہ چیز پائیدار نماند تا ملک بی سیاست

☆ دو کس مرد رزو حسرت تا کرمش عیب ہا فرو پوشد

2۔ عبید زاکانی **انتخاب از اخلاق الاشراف**

☆ مذہب منسوخ دوم اپہرا اکابر سلف تا نگریستن میدانم

☆ مذہب مختار اصحاب نامی فرمایند کہ تا میکن و میگوی

☆ مذہب منسوخ اکابر سلف عدالت را تا کار فرمودندی

☆ مذہب مختار لما مذہب اصحابنا تا تر ایدبود

3۔ اورنگ زیب عالمگیر **انتخاب از رقعات عالمگیری**

بنام پادشاہزادۂ کلان سلطان محمد معظم شاہ عالم

☆ مہین بود خلافت تا ملک داری کناد

بنام پادشاہزادہ محمد اعظم شاہ

☆ فرزند عالی جاہ! بہ اظہار جاسوسان تا پرچہ باشی زور پاش

☆ روزی سعد اللہ خان در حضور تا بہ ہمگنان رفیق باد

☆ فرزند عالی جاہ! اگر چہ آن فرزند جوان تا کوہ ہالی غم برادر

☆ فرزند عالی جاہ! اہلی حضرت از سعد اللہ خان تا دوست افتادنی است

4۔ نظامی عروضی سمرقندی **انتخاب از چہار مقالہ**

مقالہ دوم

☆ چنیں آوردہ اند کہ نصر بن احمد تا داند کہ من دوین مصیبم

5۔ میر محمد حجازی **افسانۂ مجلس عبادت**

☆ برای آنکہ از پیشانزن سیاست اداری تا سخت گیری نمی کنم وی بخشم

حصہ نظم

1۔ فردوسی حمد بنام خداوند جان وخرد تا دراندیشہ سخنہ کی گنجد اُو

2۔ عبدالرحمٰن جامی نعت یاشفیع المذنبین بارگناہ اوارہ ام تا بدحریم آستانت می نہم روی نیاز

3۔ ما آئی بہاروباغ من توئی بنفشہ رشتہ اززمین تا بنگر دچونگاری ازنگارہا

4۔ امیرخسرو غزلیات

☆ دلم درعاشقی آوارہ شدآوارہ ترباد

☆ جان زتن بردی ودرجانی ہنوز

☆ ای چہرہ زیبای تورشک بتان آذری

☆ چوخواہم با تو حالِ خود بگویم جانمی یابم

5۔ عمرخیام رباعیات

☆ اسرارازل رانہ تودانی نہ من

☆ ای چراغِ فلک خرابی زکیہ تست

☆ ازدرسِ علوم جملہ بگریزی بہ

☆ آن قصر کہ جمشید دروجام گرفت

☆ پرچند کہ رنگ وبوی زیبا است مرا

6۔ پروین اعتصامی نظم اشک یتیم

روزی گذشت پادشاہی ازگزرگسی

7۔ ایرج مرزا سنگ مرزا

ای نکویاں کہ درین دنیائید

8۔ سعدی شیرازی غزلیات

☆ ای ساربان آہستہ ران کارام جانم میرود

☆ وقتی دل سودایی رفت بہ بستانہا

☆ سروقدی میان انجمنی

☆ بسیارسفر باید تا پختہ شود خامی

9۔ علامہ اقبال انتخاب ازمثنوی اسرارخودی

دربیان اینکہ خودی ازعشق ومحبت استحکام می پذیرد

☆ نقطہ نوری کہ نام اوخودی است

نثر نگاران سعدی ، حجازی

شعراء امیر خسرو ، مولانا جامی ، علامہ اقبال

مذکورہ بالا کے احوال اور فن پر تبصرہ

Short Question نصاب میں شامل تمام مصنفین اور شعراء پر مشتمل ہونگے ۔

دستور زبان فارسی

مصادر۔مضارع اور انکے معانی، افعالِ ماضی، حال، مستقبل کے گردانیں

علم زبان

تشبیہ، استعارہ، تعریف اور مثالیں

یونیورسٹی آف گجرات

Persian

نصاب کا خاکہ 2005ء ومابعد

Paper II 4th Year

نصاب **فارسی** اختیاری (سال چہارم بی۔اے پارٹ ٹو)

کتاب

گنج دانش، گنج ادب — کل نمبر:100

کچھ کمی اور کچھ اضافہ کے ساتھ — پرچہ (ب)

Appendix "A"

Short Questions	20 نمبر
شاعران اور نثر نگاران کے احوال و آثار میں سے	
نثری پیراگراف کا اردو ترجمہ	20 نمبر
ترجمہ وتشریح اشعار	20 نمبر
تنقیدی سوالات شاعر و مضمون نویس 10+10	20 نمبر
اردو سے فارسی میں ترجمہ (Unseen Passage)	10 نمبر
کنایہ ۔ مجاز مرسل تعریف ومثالیں	10 نمبر
	100 نمبر

Appendix "B"

حصہ نثر

1۔ عبداللہ خاں انصاری — **انتخاب از الٰہی نامہ**

☆ الٰہی! ظاہری داریم شوریدہ — تا — بر جانِ تو می زند سن کماتم

2۔ امام غزالی — **انتخاب از کیمیائے سعادت**

رکن دوم ، باب دوم — 'در حقوق صحبت وشرائط آن'

☆ بدان کہ ہر کسی صحبت و دوستی را — تا — وتا تر از وی

3۔ مولانا جلال الدین دوانی — **انتخاب از اخلاقِ جلالی**

اداب سخن گفتن

☆ باید کہ بسیار نگوید — تا — دو بشنو و یکی بیش مگو

4- نظام الملک طوسی انتخاب از سیاست نامہ

'اندر فرستادنِ جاسوسان وتدبیر کردن بر صلاح مملکت ورعیت'

☆ باید کہ ہمیشہ بر ہمہ اطراف تا بدانِ جوانمرد بداد

4- مجتبیٰ مینوی انسانہ طرح کم خرج

☆ نزدیک سرحد ایتالیا وفرانسہ تا از خرج کردن مضایقہ ای ندارز

حصہ نظم

1- افضل الدین بدیل خاقانی قصیدہ

چہ سبب سوی خراسان شدنم نگذارند

2- مولانا جلال الدین رومی انتخاب از مثنوی معنوی

☆ قصہ بازرگان کہ طوطی محبوس اور پیغام داد بہ طوطیانِ ہندوستان ہنگام رفتن بی تجارت

☆ بود بازرگان داور الطوطی تا د عشقِ خویش جو

3- حافظ شیرازی غزلیات

☆ اگر آن ترک شیرازی بدست آرد دل ما را

☆ سالہا سال طلب جام جم از ما میکرد

☆ بسر جام جم آنکہ نظر تواند کرد

☆ یوسف گم گشتہ باز آید بہ کنعان غم مخور

4- فخر الدین عراقی غزلیات

☆ یک لحظہ دیدن رخ جانانم آرزوست

☆ مرا جز عشقِ تو جانی نمی بینم نمی بینم

5- مرزا اسد اللہ خاں غالب غزلیات

☆ دل ہر دو حق آنست کہ دلبر نتواں گفت

☆ جنوں مستم بفضل نو بہارم می تواں کشتن

☆ بیا کہ قاعدہ آسمان بگردانیم

6- ابو سعید ابو الخیر رباعیات

☆ باز آ باز آ ہر آنچہ ہستی باز آ

☆ وصل تو کجا وسن ہجور کجا

☆ آساں آساں ز خود امان نتواں یافت

☆ با علم گر عمل بر ابر گردد

7۔ ملک الشعراء بہار　　غزلیات

☆ آخر از جور تو عالم را خبر خواہیم کرد

☆ در طواف شمع می گفت این سخن پروانہ ای

نثر نگاران　　تفصیلی نوٹ، فن پر تبصرہ، احوال و آثار

امام غزالی ، نظام الملک طوسی

شعرا　　فن پر تبصرہ، احوال و آثار

رومی، حافظ، غالب

Short Questions　نصاب میں شامل تمام مصنفین اور شعراء پر مشتمل ہونگے۔

یونیورسٹی آف گجرات

نصاب فارسی آپشنل بی۔اے　　وقت ۳ گھنٹے

Appendix (A)

فارسی نثر پاروں کا اردو میں ترجمہ ۔　　۴۵ نمبر

فارسی نظم پاروں کا اردو میں ترجمہ و تشریح ۔　　۴۵ نمبر

مصنف / شاعر کے احوال و آثار / کتاب پر نوٹ ۔　　۱۰ نمبر

کل نمبر ۔ ۱۰۰

Appendix (B)

حصہ نثر

سعدی شیرازی کی گلستانِ سعدی سے انتخاب

گلستانِ سعدی

باب اول در سیرت پادشاہان

حکایت نمبر ۳　ملک زادہ ای را شنیدم ------ بخیان در بند اقلیمی دگر

حکایت نمبر ۴　طائفہ دزدانِ عرب میر سر کوہی ------ کہ بد کردن بجای نیک مرداں

حکایت نمبر ۹　ہرمز را گفتند وزیران پدر را ------ بر آرد بہ چنگال چشم پلنگ

حکایت نمبر ۸　یکی از ملوکِ عرب رنجور بود ------ من نکردم شما حذر بکنید

حکایت نمبر ۱۰　بر بالینِ تربت یحییٰ پیغمبر ------ نشاید کہ نامت نہند آدمی

حکایت نمبر ۱۱　درویشی مستجاب الدعوات در بغداد ------ مرو نصت بہ کہ مردم آزاری

حکایت نمبر ۱۲　یکی از ملوکِ بی انصاف بیرسائی را ------ بد زندگانی مردہ بہ

حکایت نمبر ۲۰　آوردہ اند کہ نوشیروان عادل را ------ ہزار مرغ بیخ

حکایت نمبر ۲۲　مردم آزاری را حکایت کنند ------ مغرش بر آر

حکایت نمبر ۲۴　سکندر رومی را پرسیدند ------ جز نیکوئی نبردم

باب دوم در اخلاقِ درویشاں

حکایت نمبر ۳　دزدی بخانہ پارسائی ------ عیب تو پیشِ دگراں خواہد برد

حکایت نمبر ۶　زادی مہمانِ پادشاہی بود ------ چیزی نکردی کہ بکار آید ۔

حکایت نمبر ۱۸　کاروانی را در زمیں یونان ------ بدہ وگرنہ شمشیر بر ورستاند

حکایت نمبر ۲۹　ابو ہریرہ ہر روز بخدمت ------ ولیکن نہ چنانکہ گویند بس

باب چہارم در خواید خاموشی

باب ہفتم در تاثیرِ تربیت

باب ہشتم در آدابِ صحبت

اس باب میں اخلاقی پیرائے اور پند کے عنوان کے تحت دیئے گیے ہیں۔

حصہ نظم

علامہ اقبال کی کتاب پیامِ مشرق سے انتخاب۔

لالہ طور

افکار

زندگی شبی زار نالید ابر بہار ------- میان گل و شبنم است

نسیم صبح زروی بحر و بر کوہسار ------- بنواہای او درآمیزم

کرم کتابی شنیدم شبی در کتب خانہ ------- تپش می دہد بال و پر زندگی را

کبر و ناز بخ جوی کوہ را از رہ کرو ناز ------ از مہر درخشاں نگاہ دار

حکمت و شعر بوعلی اندر غبار ناقہ ---------- سوز از دل گرفت

محاورہ مابین خدا و انسان جہاں را ز یک آب و گل ------ از زہر نوشینہ سازم

کشمیر رخت بہ کاشمر کشا -------- باز بہ خویشتن نگر

زندگی و عمل ساحل افتادہ گفت ------- گرزوم نیستم

غلامی آدم از بی بصری بندگی آدم ---- پیش سگی سر خم کرد

الملک للہ طارق جو بر کنارہ اندلس ------ ملک خدای ماست

کرمک شب تاب شنیدم کرمک شب تاب ------ چراغ راہ خویشم

میٔ باقی مثل آئینہ مشو محو جمال ------- خوشتر م آید زوصال دگراں

(غزلیات) اگر چہ زیب سرش افسر ------- خرقہ فروشان خانقاہ نیست

مصنفین سعدی شیرازی کے احوال و آثار گلستانِ سعدی پر نوٹ

شعراء علامہ اقبال کے احوال و آثار پیامِ مشرق پر نوٹ ۔

مجوزہ کتابیں جو کورس میں درج شدہ ہیں ۔

PHYSICS

The following syllabus has been prepared in accordance with the criteria announced by the Higher Education Commission of Pakistan & Lead Universities.

PAPER-I (3RD YEAR)

For B.Sc. Part-I

1. It is recommended that B.Sc. Physics should comprise of 4 theory papers, labeled as Physics-I, II, III, IV and 4 Practical papers labeled as I, II, III, IV respectively.
2. Examinations for physics I and II would be held in the 1st year of B.Sc. while for physics III and IV would be held in the 2nd year of B.Sc.
3. The subjects to be covered in these papers are as follows:
   a. Paper-I Vector Analysis, Mechanics and Theory of relativity.
   b. Paper-II Waves and Oscillations, Thermodynamics and Statistical Mechanics
   c. Paper-III Electricity and Magnetism
   d. Paper-IV Electronics and Modern Physics.

   The marks distribution is as followed:

   a. B.Sc. Part-I

Theory Paper-I	38 marks
Theory Paper-II	37 marks
Practical Paper	25 marks

   b. B.Sc. Part-II

Theory Paper-III	38 marks
Theory Paper-IV	37 marks
Practical Paper	25 marks

4. The committee deliberated at length on the role of examinations. It was the general consensus that unless the pattern and quality of examinations are seriously

addressed by the respective universities, the goal of meaningful improvement would not be attained.

5. The committee decided on the following guidelines, for examinations, keeping in view both practical considerations and the demand for increased conceptual and analytical content.

(i) Total time for each paper = 3 hours

(ii) No. of questions to be attempted = 5 out of 8

DETAIL OF EACH PAPER

Each paper would have 3 parts : Section I, II, III

Section-I

Comprising short conceptual questions (compulsory)

No. of questions = 1

No., of parts in questions = 5

(Attempt 4 parts out of 5, each part carries 2 marks) 2 x4 = 8 marks

Section-II

Theoretical questions ; (to be include mathematical derivation and qualitative explanation of phenomenon based on the particular law or relationship.

Total No. of questions = 3

No. Of questions to be attempted = 2

(Each question carries 8 marks) 2 x 8 = 16 marks

Section-III

Problems:

Problems related to test of the type and style in Halliday, Resnick & Krane. (Exact reproduction is not necessary) Problems should be suitably chosen to required application of the physics taught, as well as being a test of comprehension and quantitative skills.

No. of questions = 4

No. of questions to be attempted = 2

(Each question carries 7 marks) 2 x 7 = 14 marks

Thus a total of 5 questions out of 8 have to be attempted, as specified above viz. 1 from Section-I, 2 from Section-II and 2 from Section-III.

DETAIL OF COURSE Paper-I

VECTOR ANALYSIS, MECHANICS, AND THEORY OF RELATIVITY (38 marks)

1. Vector Analysis: Review of Vector in 3 dimensions and Operations; Direction; Cosines; Spherical polar coordinates; Vector and scaler triple product gradient of a scalar, Divergence and curl of a vector, Physical significance of each type; Divergence and Flux of a vector field, curl and line integral (mutal relation). Vector identities. Divergence Theorem, Stokes' Theorem: Derivation, physical importance and applications to specific cases. Converting from differential to integral forms.

2. Particle Dynamics: Dynamics of Uniform, circular motion the banked curve. Equations of motion. Deriving kinematic questions x(v), V(t) using integrations. Constant and variable forces and special examples. Time dependent forces: Obtaining x(t), v(t) for this case using integration method. Effect of drag forces on motion: Applying Newtons Laws to obtain V(t) for the case of motion with time dependent (Integration approach) drag (viscous) forces; terminal velocity. Projectile motion with and without air resistance. Non inertial frames and Pseudo forces, Qualitative discussion to develop understanding. Calculation of pseudo forces for simple cases (linearly accelerated references frame). Centrifugal force as an example of pseudo force; Coriolis force.

3. Work, Power and Energy: Work done by a constant force, work done by a variable force (1-2 dimension): (Essentially a review of grade-XII concepts use of integration technique to calculate work done (e.g. in vibration of a spring obeying Hookes' Law). Obtaining general expression force (2-dimensional case) and applying to simple cases e.g. pulling a mass at the end of a fixed string against gravity. Work energy theorem. General proof of work energy theorem:

Qualitative Review of work energy theorem. Derivation using integral calculus. Basic formula; and applications. Power, Energy changes with respect to observers in different inertial frames. Conservation of Energy in 12, and 3 dimensional Conservative systems, Conservative and non Conservative forces: Conservation of energy in a system of particles: Law of conservation of total energy of an isolated system.

4. Systems Of Particles: Two particle systems and generalization to many particle systems: Centre of mass: Its position velocity and equation of motion. Centre of mass of solid objects. Calculation of Centre of Mass of solid objects using integral calculus. Calculating C.M. of,

   i) Uniform Rod. ii) Cylinder iii) Sphere

   Momentum Changes in a system of variable mass: Derivation of basic equation; application to motion of a rocket (determination of its mass as a function of time).

5. Collisions: Elastic Collisions. Conservation of momentum during Collision:

   a) One dimensions.(Concept)

   b) Two dimensions(Oblique Collisions) (Mathematical treatment)

   Inelastic collision. Collisions in centre of Mass reference frame: One and two dimensions. Simple applications: obtaining. Velocities in c.m. frame.

6. Rotational Dynamics: Relationships between linear & angular variables; scalar and vector form. kinetic energy of rotation; Moment of Inertia. Parallel axis theorem, Perpendicular axis: Prove and Illustrate; apply to simple cases. Determination of moment of inertia of various shapes i. e. for disc, bar and solid sphere, Rotational dynamics of rigid bodies: Equations of rotational motion and effects of application of torques. Combined rotational and transnational motion: Rolling without slipping

7. Angular Momentum: Angular Velocity, Conservation of angular momentum, effects of Torque and its relation with angular

momentum, stability of spinning objects, Discussion with examples. The spinning Top: Effects of torque on the angular momentum, precessional motion.

8. Gravitation: Gravitational effect of a spherical mass distribution. Mathematical treatment, Gravitational Potential Energy, Develop using integration techniques; calculation of escape velocity, Gravitational field & Potential, Universal Gravitational Law, Radial and transversal velocity and acceleration. Motion of Planets and Keplers' Laws.(Derivation & explanation) Motion of Satellites. Energy considerations in planetary and satellite motion, Qualitative discussion on application of gravitational law to the Galaxy.

9. Bulk ProDerties of Matters. Elastic Properties of Matter, Physical basis of elasticity. Tension, Compression & shearing. Elastic Modulus; Elastic limit. Poisson's ratio, Relation between three types of elasticity, Fluid Statics, Variation of Pressure in fluid at rest and with height in the atmosphere, Surface Tension, Physical basis; role in formation of drops and bubbles, Viscosity, Physical basis, obtaining the Coefficient of viscosity, practical example of viscosity; fluid flow through a cylindrical pipe (Poisenille's law).

10. SDecial Theory of Relativity. Ineratial and non inertial frame, Postulates of Relativity. The Lorentz Transformation, Derivation, Assumptions on which inverse transformation derived. Consequences of Lorentz transformation, Relativity of time; Relativity of length, Relativity of mass. Transfermission of velocity, variation of mass with velocity, mass energy relation and its importance, relativistic momentum and Relativistic energy, (Lorents inveriants)

$E2=c^2p^2+m^2c^4$

PAPER-II, Part-I (3RD YEAR)

Section 1 Compulsory

4 questions out of 5 marks (2X4=8)

Section II

2 questions out of 3 marks(2X8=16)

Section III

2 out of 4 marks (2X6 ½=13)

Total Marks 37

WAVES & OSCILLATIONS,

THERMODYNAMICS AND STATISTICAL MECHANICS

1. Harmonic Oscillations: Simple harmonic oscillation (SHM), Obtaining and solving the basic equations of motion x(t), v(t), a(t). Longitudinal and transvers Oscillatins, Energy considerations in S.H.M. Application of SHM:Torsional Oscillator; Physical pendulum, simple pendulum. SHM and uniform circular motion, combinations of Harmonic motions: Lissaajous patterns. Damped Harmonic Motion: Equation of damped harmonic motion, Quality factor, discussion of its solution. Forced Oscillations and resonances. Equation of forced oscillation, discussion of its solution. Examples of resonance.

2. Waves in physical Media: Mechanical waves, Travelling waves, Phase velocity of travelling waves; Sinusoidal waves; Group speed and dispersion. Waves speed, Mechanical analysis, Transfer, wave equation, Discussion of solution. Power and intensity in wave motion, Derivation & discussion, Principle of superpositon (basic ideas), Interference of waves, standing waves. Phase changes on reflection; Natural frequency, resonance.

3. Sound: Beats Phenomenon, Analytical treatment,

4. Light: Nature of light Visible light (physical characteristics). Light as an Electro-magnetic wave: Speed of light in matter; physical aspects, path difference, phase difference etc.

5. Interference : Coherence of sources; Double slit interference, analytical treatment. Adding of Electromagnetic waves using phasors. Interference from thin films, Newton~s rings (analytical treatment). Febry-perot Interferometer: Working and analytical treatment, Fresnels Biprism and its use.

6. Diffraction: Diffraction at single slit; Intensity in single slit diffraction using phasor treatment and analytical treatment using addition of waves. Double slit interference & diffraction combined. Diffraction at a circular aperture. Diffraction from multiple slits:
Discussion to include width of the maxima. Diffraction grating:
Discussion, use in spectrographs. Dispersion and resolving power of gratings.
Introduction to Holography:

7. Polarization: Basic definition, production of polarization by polarizing sheets, by reflection, by double refraction and double scattering. Description of polarization states. Linear, Circular, elliptic polarization. Specific rotation of plane of polarization. Use of Polarimeter

8. Statistical Mechanics: Statistical Distribution and Mean values:
Mean free path and microscopic calculations of mean free path. Distribution of Molecular speeds, Distribution of energies: Maxwell distribution; Maxwell-Boltzmann energy distribution; Internal energy of an ideal gas.Brownian motion, Qualitative description. Diffusion, Conduction and Viscosity.

9. Heat and TemDerature: Temperature, Kinetic theory of the ideal gas, Work done on an ideal gas, Review of previous concepts. Internal energy of an ideal gas: To include the Equipartition of energy. Intermolecular forces. Qualitative discussion. Van der Waals equation of state.

10. Thermodynamics: Review of previous concepts. First law of Thermo-dynarnics, and its applications to adibatic, isothermal, cyclic and free expansion. Reverible and irreversible processes, Second Law of thermodynamics, Carnot theorem, Carnot engines. Heat engine. Refrigerators. Calculation of efficiency of heat engines. Thermodynamic temperature scale: Absolute zero: Entropy, Entropy in reversible process Entropy in irreversible process. Entropy & Second Law. Entropy & probability. Thermodynamic functions:
Thermodynamic functions (Internal energy, Enthalpy, Gibb's functions, Entropy, Helmholtz functions) Maxwell's relations, Tds equations, Energy equations and

their applications. Low Temperature Physics, Liquification of gases: Joule-Thomson effect and its equations. Thermoelectricity,Thermocouple, Seabeck's effect, Peltier's effect, Thomson effect

PAPER-III, Part-II (4th YEAR)

ELECTRICITY AND MAGNETISM 38 marks

1. Electric Field: Field due to a point charge; due to several point charges, Electric dipole. Electric field of continuous charge distribution e.g Ring of charge; disc of charge; infinite line of charge. Poit charge in an electric field. Dipole in an electric field: Torque on, and energy of, a dipole in uniform field. Electric flux; Gauss's law; (Integral and differential forms) and its application. (Integral forms).Charged isolated conductors; conductor with a cavity, field near a charged conducting sheet. Field of infinite line of charge; Field of infinite sheet of charge. Field of spherical shell. Field of spherical charge distribution.

2. Electric Potential: Potential due to point charge. Potential due to collection of point charges. Potential due to dipole. Electric potential of continuous charge distribution. Poisson's and Laplace equation without solution. Field as the gradient or derivative of potential. Potential and field inside and outside an isolated conductor

3. Capacitors and dielectrics: Capacitance; calculating the electric field in a capacitor. Capacitors of various shapes, cylindrical, spherical etc. and calculation of their capacitance. Energy stored in an electric field. Energy per unit volume. Capacitor with dielectric: Electric field of dielectric: An atomic view, Application of Gauss' Law to capacitor with dielectric.

4. D C Circuits: Electric Current, current density J , resistance, resistivity, and conductivity, Ohm's Law, energy transfer in an electric circuit. Equation of continunity. Calculating the current in a single loop, multiple loops; voltages at various elements of a loop:

Use of Kirchoffs 1st & nd law, Thevenin theorem, Norton theorem and Superposition theorem, Growth and Decay of current in an RC circuit. Analytical treatment.

5. Magnetic Field Effects and Magnetic ProDerties of Matter:
agnetic force on a charged particle, Magnetic force on a current recall the previous results.(Do not derive). Torque on a current loop. Magnetic dipole: Energy of magnetic dipole in field. Discuss quantitatively, Lorentz Force with its applications i.e. Biot-Savart Law: Analytical treatment and appli-cations to a current loop, force on two parallel current changing conductors. Ampere's Law: Integral and differential forms, applications to solenoides and toroids. (Integral form), Gauses' Law for Magnetism: Discussing and developing concepts of conservation of magnetic flux; Differential form of Gauses Law. Origin of Atomic and Nuclear magnetism: Basic ideas; Bohr Magneton. Magnetization: Magnetic Materials: Paramagnetism, Diamagnetism, Ferromagnetism - Discussion. Hysteresis in Ferromagnetic materials.

6. Inductance: Faraday's Law of Electromagnetic Induction: Review of emf, Faraday Law and Lenz's Law, Induced electric fields:
Calculation and application using differential and integral form, Inductance, "Basic definition". Inductance of a Solenoid; Toroid. LR Circuits: Growth and Decay of current; analytical treatment. Energy stored in a magnetic field: Derive. Energy density and the magnetic field. Electromagnetic Oscillation: Qualitative discussion. Quantitative analysis using differential equatins. Forced electromagnetic oscillations and resonance.

7. Alternating Current Circuits: Alternating current: AC current in resistive, inductive and capacitative elements. Single loop RLC circuit: Series and parallel circuits i.e. acceptor and rejector, Analytical expression for time dependent solution. Graphical analysis, phase angles. Power in A.C circuits: phase angles; RMS values power factor. Circuit transients. RL, RC & RCL transients.

8. Electro Magnetic Waves (Maxwell's Equations): Summarizing the electro-magnetic equations: (Gauss's law for electromagnetism; Faraday Law; Ampere's Law). Induced magnetic fields & displacement current. Development of concepts, applications. Maxwell's equations: (Integral & Differential forms) Discussion and implications. Generating an electro- magnetic wave. Travelling waves and Maxwell's equations. Analytical treatment; obtaining differential form of Maxwell's equations: obtaining the velocity of light from Maxwell's equations. Energy transport and the Poynting Vector. Analytical treatment and discussion of physical concepts.

PAPER-IV, Part-II (4th YEAR)

ELECTRONICS & MODERN PHYSICS (Written) 37 marks

1. Electronics: Fundamental types of Lattice, Unit cell, Basic crystal structure, energy band in solid and energy gaps p-type, n-type semiconductor materials, P-n junction diode its structure, characteristics and application as rectifiers. Transistor, its basic structure and operation, transistor biasing for amplifiers, characteristics of common base, common emitter, common collector, load line, operating point, hybrid parameters (common emitter). Transistor as an amplifier (common emitter mode). Positive & negative feed back R.C. Oscillators. Logic gates OR, AND, NOT, NAND, NOR and their basic applications.

2. Origin of Quantum Theorv: Black body radiation, Stefan boltzmann, wien and planck's law- consequences. The quantization of energy, quantum numbers, correspondence principle, Einstein's photon theory The Compton effect. Line spectra Explanation using quantum theory.

3. Wave Nature of Matter: Wave behaviour of particle, wave function (its definition and relation to probability of particle), De. Broglie hypothesis and its testing. Davisson- Germer Experiment and J.P. Themson Exp. Wave packets and particles, localizing a wave in space and time.
4. Quantum Mechanics: Postulates of Quantum Mechanics, Quantum operators, linear operators & their properties i.e. momentum operator, energy operator.

Eigen value equation. Eigen operators and eigen function. Schrodinger equation (time dependent and time independent with derivation) and its applications to step potential, free particle, barrier, tunneling (basic idea) particles in a well, probability density using wave function of states.

5. Atomic Physics: Bohr's theory (review) Fank. Hertz experiment, energy level of electrons, Atomic spectrum, Angnlar momentum of electrons, vector atom model, orbital angular momentum. Spin quantization, Bohr's Magnetron. X-ray spectrum, (Continuous and discrete) Moseley's law, pauli exclusion principle table and its use in developing the periodic table.

6 Nuclear Physics: Basic properties of a nucleus, Mass No Atomic No. Isotopes Nuclear force (Basic Idea) Nuclear Radii, Nuclear Massess. Binding energnes, mass defed. Nuclear Spin and Magnetism.

7. Natural Radioactivity: Laws of radioactive decay, half life, mean life, chain disintegration, Alpha, Beta decay (basic idea) Measunng ionizing radiation (units i.e. curies, Rad etc.)

8. Nuclear Reactions: Basic Nuclear reactions, Q-value, exotheronic, endothermic Nuclear fission, Liquid drop nodel, Nuclear Reactors (Basic). Thromonuclear Fusion T.N.F. in Stars.

9. Introduction to Quantum Optics (Laser) and Plasma Physics:+Basic concept of plasma and its applications, controlled thermonuclear fusion, and its requirements for a T.N. reactor. Basic concepts and characteristics of LASER, different types of laser, working of He-Ne Laser.

Practical for B.Sc. (General Physics)

The following practicals are recommended for both B.Sc, Part-I & II. Minimum number of practicals to be performed is 6 and each practical paper carries 10 marks: Teachers are requested to emphasize on graphical analysis, error calculation and on system of S.I. units in the beginning of session.

Division of Marks for Practical in each paper.

Experiment	10 + 10=20 marks
Viva + N.B.	3 + 2=5marks

B.Sc. Part-I Practicals

PAPER-I MECHANICS

1. Modulus of Rigidity by Static & Dynamic method (Maxwell's needle, Barton's Apparatus)
2. To study the damping features of an Oscillating, system using simple pendulum of variable mass
3. Measurement of viscosity of liquid by Stoke's I Poiseulli's method.
4. Surface tension of water by capillary tube method.
5. To determine the value of "g" by compound pendulumikater's Pendulum
6. To study the dependence of Centripetal force on mass, radius, and angular velocity of a body in circular motion.
7. Investigation of phase change with position in traveling wave and measure the velocity of sound by C.R.O.
8. Determination of moment of inertia of a solid/hollow cylinder and a sphere etc.
9. To determine thermal emf and plot temperature diagram.
10. Determination of temperature coefficient of resistance of a given wire.
11. Determination of 'J" by Callender - Barnis method.
12. The determination of Stefan's constant.
13. Calibration of thermocouple by potentio meter.
14. To determine frequency of AC supply.
15. To determine Horizontal Vertical distance by Sextant.
16. The determination of wavelength of Sodium -D lines by Newton's Ring.
17. The determination of wavelength of light/laser by Diffraction grating.
18. Determination of wavelength of sodium light by Fresnel's bi-prism.
19. The determination of Resolving power of a diffraction grating.
20. To study the characteristics of Photo emission and determination of Planck's constant using a Photo cell.
21. The measurement of Specific rotation of sugar by Polarimeter and determination of sugar concentration in a given solution.

22. Determination of the radius of lycopodium particles.

B.Sc. Part-II Practicals

ELECTRICITY AND MAGNETISM AND MODERN PHYSICS, ELECTRONICS

1. Measurement of resistance using a Neon flash bulb and condenser
2. Conversion of a galvanometer into Voltmeter & an Ammeter
3. Calibration of an Ammeter and a Voltmeter by potentiometer
4. Charge sensitivity of a ballistic galvanometer
5. Comparison of capacities by ballistic galvanometer
6. To study the B.H. curve & measuring the magnetic parameters.
7. Measurement of low resistance coil by a Carey Foster Bridge.
8. Resonance frequency of an acceptor circuit
9. Resonance frequency of a Rejecter Circuit.
10. Study of the parameter of wave i.e. Amplitude, phase and time period of a complex signal by CRO.
11. Measurement of selfimutual inductance.
12. Study of electric circuits by black box.
13. Determination of elm of an electron
14. Ionization potential of mercury.
15. Characteristics of a semiconductor Diode (Compare with (Si & Ge diode)
16. Setting up of half & full wave rectifier & study of following factors
    i. Smoothing effect of a capacitor
    ii. Ripple factor & its variation with load.
    iii. Study of regulation of out put voltage with load.
17. To set up a single stage amplifier & measure its voltage gain and band width.
18. To set up transistor oscillator circuit and measure its frequency by an oscilloscope.
19. To set up and study various logic gates (AND, OR, NAND etc) using diode and to develop their truth table.
20. To set up an electronic switching circuit using transistor LDR and demonstrate its use as a NOT Gate.
21. Characteristics of a transistor.

22. To study the characteristic curves of a G. M. counter and use it to determine the absorption co-efficient of βparticle in Aluminum.
23. Determination of range of a particles
24. Mass absorption coeff of Pb for y-rays using G.M counter.
25. Use of computer in the learning of knowledge of GATE and other experiments.

Book for B.Sc.General Phsics

1. Fundamental of Physics by Halliday, Resnick and krane

Books Recommended

1. College Physics by Sears, Zemansky and Young Physics (5th Edition) by Giancoli
3. Physics by Serway
4. Vector Analysis by Spiegel, Schaum Publishing Co.
5. Concepts of Modern Physics by A. Beiser
6. Modern Physics by H.C. Ohanian.
7. Basic Electronics by Grobe.
8. Electronic devices by Floyed
9. Introduction to Electromegnetic Field and Waves by Corson and Loran.
10. Introduction to Electromegnetic Field and Waves by Reitz and Milford.
12. Mechanics by Dr. Rafique Ahmad
13. Essentials of Modern Physics by Acosta, Cowan and Graham

POLITICAL SCIENCE

NOTE: Students will be asked to attempt FIVE questions of equal marks including a compulsory question comprising of parts with short answers from the whole syllabi and another four question for the remaining questions.

PAPER-I (3RD YEAR)

1. INTRODUCTION TO POLITICAL SCIENCE.

   a) Definition, nature and scope of Political Science. Relationship with other social sciences: Economics and History, Sociology, Geography and Psychology.
   b) Approaches to the study of Political Science: Traditional approach; Behavioural approach, Descriptive & normative approach

2. POLITICAL COMMUNITY
   a) State and its Evolution: State and its elements, Theories regarding origin of state, Divine origin, Force, Social Contract Theory with reference to Hobbes, Locke & Rousseau, Historical Theory.
   b) Concepts of State.
      i) Traditional concept with reference to Plato and Aristotle.
      ii) Islamic concept with special reference to lbn-Khaldun and Shah Waliullah.
      iii) Concept of Sovereignty: Monistic and pluralistic; Western and Islamic.

3. INDIVIDUAL IN POLITICAL COMMUNITY
   i) Law and individual: Law, Law of Sharia, Kinds and sources, Importance of Ijtihad.
   ii) Rights and duties of individual (Western and Islamic)
   iii) Liberty and freedom of individual, Safeguards of Liberty.

4. FORMS OF GOVERNMENT/ POLITICAL SYSTEM

   i) Unitary, Federal and Confederation

   ii) Parliamentary and Presidential

   iii) Democratic and Totalitarianl Authoritarian.

5. STRUCTURE AND ROLE OF GOVERNMENT

   i) Legislature: law making

   ii) Executive: law enforcing

   iii) Judiciary: law adjudicating

   iv) Separation of powers/Checks and Balances.

6. POLITICAL PARTICIPATION

   i) Electoral process

   ii) Voting behaviour

   iii) Political parties

   iv) Pressure groups

   v) Public opinion and media.

7. COMPARATIVE IDEOLOGIES

   i) Capitalism

   ii) Marxism

   iii) Islamic Ideology and Nationalism.

8. INTERNATIONAL COMMUNITY

   i) United Nations

   ii) Regional Organizations: ECO, SAARC, 0IC.

While dealing and teaching this paper references to the western & Muslim political philosophers should be given quite frequently.

BOOKS RECOMMENDED:

Paper-I

1. Ahmad Shafi Chaudhry, Usual Sisatiate
2. Dr. Mazar-uI-Haq, Theory and Practice in Political Science.
3. Dr. Muhammad Sawar, Muarfi-e-Siasiate, Lahore: Ilmi Kitab Khana, 1996.
4. Farooq Malik, Asul-e-Siasiat, Lahore: Jadid Book Dept., 1996.
5. Rodes and Anderson, Introduction to Political Science
6. S.P.Verma, Political Theory
7. Islami Nazriya Hayat by Prof Khursheed Ahmad.

PAPER-II (4TH YEAR)

COMPARATIVE CONSTITUTIONS

Part A: CONSTITUTIONS OF PAKISTAN.

A comprehensive analysis of the Constitutions *1956* & 1962 of Pakistan be made with reference to:

1. Constitutional development with special emphasis on 1973 constitution.
2. Political Institutions: Legislature, Executive, Judiciary and Political Parties.

Part-B:

Study of The following constitutions:

* USA
* UK
* India

BOOKS RECOMMENDED:

Paper-II

1. Ahmad Shafi Chaudhry, Jadeed Riasetain, Lahore: Standard Book Dept. 1996.
2. Dr. Mazar-uI-Haq, Modern Government
3. Dr. Muhammad Sarwar, Jadeed Hakoometain, Lahore: Ilmi Kitab Khana. 1998
4. Farooq Malik, Jadeed Dasateer, Lahore: Jadeed Book Dept., 1996.
5. G.W. Chaudhry, Constitutional Development in Pakistan
6. Prof. Farid-ul-Haq, Dasatir-l-Alam

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PSYCHOLOGY

SYLLABUS FOR B.A./B.Sc. PSYCHOLOGY

Paper-A: General Psychology		100 Marks
Theory	75 marks	
Practical	25 marks	
Paper-B: Areas of Psychology		100 Marks
Theory	75 marks	
Practical	25 marks	

Paper-I (For 3rd Year) **(Theory)**

Section-I (2 out of 4)

INTRODUCTION TO PSYCHOLOGY:

A. Nature & definition of Psychology in the light of historical perspective

B. Spirit of Experimental & Physiological Psychology (19th century Weber Fetchner & Helmholtz)

C. Schools of Psychology (structure, functional, cognitive)
Psychodynamics
Humanistie Psychology
Behaviourism
Gestalt Psychology

RESEARCH METHODS IN PSYCHOLOGY

A. Prerequisites
Problem & its statement
Hypothesis: How to write & construct a hypothesis
Sampling: Random, Non-Random.

B Research Methods
Case History , Expl Method, Survey, Field study method

SENSATION AND PERCEPTION

A. Nature & definition of Sensation

B. Thresholds: Absolute Theshold & Differential Threholds

C. Vision: Structure & Function of Eye (emphasis on Ratina & Brain function)

D. Hearing: Structure & Function of Ear

E. Perception

Nature of Perception

Types of Perception: Perception of Form, Depth Perception, Perception of Movement

F. Perceptual Constancies: Lightness & Colour Constancy, shape constancy, size & location constancy

G. Illusion: Nature & Causes of Illusion.

LEARNING & MEMORY

A. Definition & Nature of Learning

B. Conditioning: Classical conditioning and Operant Conditioning.

C. Cognitive learning

D. Computer-Assisted Learning

E. Transfer of Learning: Nature, negative, Transfer, Positive Transfer, Bilateral transfer of learning

F. Nature of Memory Distinction about memory

(a.) Short term memory (b.) Long term memory (c.) Improving memory

Section-II (2 from 4)

NEURO PSYCHOLOGY

A. Basic Units of Nervous System: neuron And Nerves.

• Organization of Nervous System

Central Nervous System: Brain & Spinal Cord (Structure & Function)

Peripheral Nervous System. Glandular system.

(Structure & function of Endocrine Glands)

HEREDITY AND BEHAVIOUR

A. Chromosomes and Genes

B. Mechanism of Heredity(Genetic Studies of Behaviour)

C. Environmental influences on Gene action.

MOTIVATION AND EMOTION:

A. Nature of Motives.

B. Theories of Motivation.

Psychoanalytical Theory

Social Learning Theory.

C. Types of Motives.(Biological & Secondary Motives)

D. Emotion . Nature of emotion, Psychological & physiological changes in motion

E. Theories of Emotion (james-Lange Theory, Cannon-bard & Cognitive Theory)

LANGUAGE AND THOUGHT

A. Concepts: Their nature & formation

B Language & Communication

C. Development of Language

D. Types of thinking.

E. Problem solving.

F. Creative thinking.

Paper-III (Practical) 25 Marks

STATISTICS 10 Marks

Graphical representation of data, Histogram, Polygon, Histopolygon,

frequency curve.

Central tendencies: Mean, Median, Mode

Dispersion

Standard Deviation (Both Grouped & Un-Grouped Data with Shortcut & Direst Methods)

Spearman's Rank Correlation (Including Tied Ranks)

PRACTICAL S 10 Marks

1. Measurement of Memory (Recall Method, Sensible vs Non-Sensible Syllables)
2. Measurement of memory changes.
3. Transfer of Training (Mirror Drawing, Star Pattern)
4. Illusions (Study of Thresholds with the help of Muller Lyer Cards)

Note Book & Viva 5 Marks

PAPER-II (For 4th Year) (Theory)

Section-I (2 from 4)

PSYCHOLOGICAL TESTING

A. Psychological Tests & their Brief History; Basic traits of good test; Types of Tests

B. Nature & Theories of Intelligence: Spearman, Thurstone & GLilford's Theories

PERSONALITY

A. Definition of Personality

B. Theories of Personality (Freud, Adler and Roger, Theories)

C. Projective Techniques of Personality Measurements (T.A.T & Rorsehach Inkblot Test)

D. Non-Projective Techniques of Personality Measurements (MMPI & EPPS)

PSYCHOPATHOLOGY

Frustration: Types or causes of Frustration; Defence Mechanism of Frustration

A. Definition of Abnormality & a Brief History of Psychopathology Nature of

Normality; Traits of Normal Individual; Classifying Abnormal Behavior

B. Anxiety Disorders

Generalized Anxiety

Phobias

Obsessive Compulsive Disorders

C. Schizophrenia: Nature, Etiology & Clinical Types of Schizophrenia

D. Mood Disorders (Manic Depressive reactions)

Section-II (2 from 4)

PSYCHOTHERAPY

Need of Psychotherapy

Therapies: Psychoanalysis, Behavior Modification, Client Centered Therapy, Reading Therapy

(In the light of the basic concepts of Maulana Ashraf Ali Thanvi)

(Dr. Azhar Ali Rizvi)

SOCIAL PSYCHOLOGY:

A. Attitude: Nature, Formation & Measurements on Attitude

B. Nature of Stereotypes & Prejudice

Causes of Prejudice & Eradication of Prejudice

C. Public opinion and propaganda

A: INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY

A. Relationship between Labour & Management: Morale and productivity

B. Personnal Selection

C. Accidents, Strikes And Lockouts; Causes & Prevention

D. Advertisement & its Principles &- Techniques

B: CRIMINAL AND CORRECTIONAL PSYCHOLOGY

A. Classification of criminals

B. Function of correctional Psychology

C. Psychological causes of crime and their control

Paper-IV (Practical) 25 Marks

PRACTICAL S 10 Marks

1. Thematic Apperception test
   Two Pictures scoring to find the frequency of needs expressed in the Stories (Personality assessment)
2. Free Association test (Keut Rozanoff List Study of personality Traits)
   Study of personality Traits
3. Measurement of Imagery
4. Colour Zone of Ratina
5. Maze Learning
6. Case History Anxiety 10 Marks
   Case study of one neurotic patient or socio cultural distorted, drug addicted, spoiled child.
   Note Book & Viva 5 Marks

Recommended Books

1. Introduction to Psychology by Rita.L.Atkinson, R.C.Atkinson, H.R.Hilgard. 8th edition.
2. Psychology & Life by F.L.Ruch 7th & 8th edition.
3. Abnormal psychology by Coleman. Latest edition
4. Abnormal psychology by David Neil latest edition
5. Experimental Psychology by Postmen
6. Methodology by T.J.Endrew.

یونیورسٹی آف گجرات

پنجابی پارٹ۔ا تھرڈ ایر

ا۔	نظم (ترجمہ،تشریح،سیاق وسباق)	۴۰نمبر
۲۔	نظم (اتے بھرواں تنقیدی نوٹ)	۱۵نمبر
۳۔	کسی شاعر دے فن وفکر اتے نوٹ	۱۰نمبر
۴۔	لوک صنفاں،ادبی صنفاں	۱۵نمبر
۵۔	اردوتوں پنجابی ترجمہ	۲۰نمبر

کل نمبر ۱۰۰

شعری جزاں دی تشریح: شاعر داناں دے جزاں دا سرناواں
حصہ نظم: ہون دا بوٹا،سورج تے دھرتی،غزل، قسم،سفر دی رات،کل دی گل،مان اے مینوں،غزل،غزل،ایہہ نیں مینڈاں گراں،بیلے دی حور،نیں جیون دی،غزل،چُسی،گیت،سی حرفی،ابیات،پندنامہ،جنگ نامہ (شہادت امام حسین)،سراپا نگاری،
چھٹی،کافی،حمد،سی،دیوڑھ،دوہڑے،سیفل نامہ،شلوک

شاعر تے لکھاری:
حفیظ تائب،شریف کنجاہی،احمد راہی،عارف عبدالمتین،نواز،عبدالمجید بھٹی،منیر نیازی،قیوم نظر،رؤف شیخ،سلیم کاشر،باقی صدیقی،
شیر افضل جعفری،بشیر منذر،رشید انور،ارشد میر،اقبال صلاح الدین،اختر کاشمیری،حنیف باوا،ڈاکٹر سید اختر جعفری،
میاں ہدایت اللہ،بردا پشاوری،حاجی محمد صفوری،محمد بوٹا گجراتی،مولوی غلام رسول عالمپوری،خواجہ غلام فرید،میاں محمد بخش،ہاشم شاہ،
مولوی لطف علی،وارث شاہ۔

پنجابی نثر تے صنفاں،رسالے،داستان،ناول،افسانہ،ڈرامہ،مضمون نگاری،سفرنامہ،طنز ومزاح نگاری،انشائیہ،تنقید نگاری،نثر دیاں قسماں،بینہ نثر،وصفیہ نثر،توضیحہ نثر،استدلالیہ نثر،ادب کس نوں کہندے نیں،ادب دیاں قسماں،بحر،ردیف،قافیہ،مطلع،مقطع،
معراج نامہ،جنگ نامہ،مرثیہ،دوہڑہ،مثنوی،گیت،غزل،باراں ماہ،کافی،وار۔

لوک صنفاں: لوری،بولی،ماہیا،ڈھولا،ٹپہ،ککلی،گدا،وغیرہ

پنجابی اختیاری پارٹ۔۱۱ فورتھ ایر

نصاب داخاکہ

۱۔	نثر (ترجمہ،تشریح،سیاق وسباق بمعہ لکھاری داناں تے سبق داناں)	۳۰نمبر
۲۔	کہانی جاں مضمون اتے بھرواں تنقیدی نوٹ	۱۵نمبر
۳۔	تنقید نگاری	۲۰نمبر
۴۔	اکھان	۱۵نمبر
۵۔	مضمون	۲۰نمبر

حصہ نثر اسباق

۱۔ پنڈ دا باوَ،وارث شاہ دا پنجاب،اسلم، پگ،ونجارا میرے ہان دا،پنجابی ناول تے اوہدا مستقبل،پنجاب وچ اسلام دا کھلار، مدینے وچ حضور دی آمد،دھی،سرداراں

۲۔ کسے کہانی یا مضمون تے بھرواں تنقیدی نوٹ

۳۔(i) تنقید کیہہ اے،ادب لئی تنقید کیوں ضروری اے،اک چنگے نقاد دیاں خوبیاں، تنقید تے تخلیق دا تعلق۔

(ii) تنقیدی دبستان:نفسیاتی،تاریخی،سائنٹیفک،جمالیاتی،مارکسی تشریحی تنقید (۴وچوں۲)

۴۔ اکھان

۵۔ مضمون: i۔کرنٹ افیئرز ii۔صوفیاں دی حیاتی تے شاعری iii۔کمپیوٹر iv۔نشیات v۔عالم اسلام دے مسائل

کتاباں

۱۔ چونواں پنجابی ادب۔ مرتبین:اسلم رانا،شہباز ملک،سید اختر جعفری،یونس احقر،نور احمد ثاقب مطبوعہ:تاج بک ڈپو لاہور

۲۔ تنقیدی وچار مرتب:سید اختر جعفری مطبوعہ:تاج بک ڈپو لاہور

۳۔ پنجابی کہاوتیں مرتب:شہباز ملک مطبوعہ:میری لائبریری لاہور

یونیورسٹی آف گجرات

نصاب برائے پنجابی آنرز

کل نمبر ۱۰۰

۱۔حصہ نثر ۴۰نمبر

چپ شاہ، دل دریا چھاواں فقیر دیاں جنگی نظماں، چنی، پاکستان دی تحریک تے پنجابی لکھاری، بس دا سفر، سر ہیوں دے پھل تے پکیاں سڑکاں، ادبی تے غیر ادبی لکھتاں وچ فرق، پاک پنجابی تے شاعری۔

۲۔حصہ نظم ۴۰نمبر

حمد سید با عیاں بحر اسورج، چاند بی بی، تیری یاد، کھیڈ لے، جین لئی جتن، نعت، غزلاں (پیر فضل، عارف عبد التین، رؤف شیخ، سلیم کاشر، اقبال سوکڑی، قیوم نظر، منظور وزیر آبادی، یونس احقر) سکھ دا دکھ، پیار نے وین۔

۳۔نثری سبق تے نظماں تے تنقیدی نوٹ ۲۰نمبر

۴۔اردو پیرے دا پنجابی ترجمہ ۲۰نمبر

نصابی کتب

ادبی مہکاں مرتبین: شہباز ملک (مدیر) اسلم رانا، سید اختر جعفری، یونس احقر، نور احمد ناقب۔

مطبوعہ۔تاج بک ڈپو، اردو بازار لاہور

SOCIAL WORK

NOTE: Students will be asked to attempt FIVE questions of equal marks including a compulsory question comprising of parts with short answers from the whole syllabi and another four question for the remaining questions.

SCHEME OF STUDIES

The following syllabi and course of reading in the subject of Social work (Elective) for the B.A. examination is hereby proposed.

Paper-I:	Pakistan Society, its need and problems	75 marks
	Practical	25 marks
Paper-II:	Social Work – Theory and Practical	75 marks
	Practical	25 marks
	TOTAL	200 marks

PAPER-I (For 3rd Year)

One Compulsory question.

Unit-I:

(a) Definition and description of the terms "society".
(b) Characteristics of Pakistan Society (concept of Islamic society)
(c) Comparison of Rural and Urban Communities.
(d) Factors which promote and hindes social development.

Unit-II: Culture

(a) Definition and description of the term "Culture" and its importance.
(b) Influence of various cultures in Pakistan Culture.

(c) Characteristics of Pakistani Culture. Concept of Islamic Culture.

(d) Social norms-definition and types (i.e, folkwayer, mores and laws)

(e) Socialization – definition and description and factors of socialization (i.e., family)

(f) Neighbourhood, Educational Institutions, mass-Media and Communication.

Unit-III:

(a) Definition and description of Social "Institutions"

(b) Types of Social Institutions.

(c) Functions of the following:

Family Institution	Religion institution
Political Institution	Economic Institution
Educational Institution	importance of religion in social life.

(d) Imposrtance of Social Institution

Unit-IV: Social Change

(a) Theories of Social Chance

(b) Factors which promote a the process of social change

(c) Influence of change on individual and values.

Unit-V: Social-Economic Needs of Pakistan

(a) Agricultural development – its importance and hurdler involved – Remedies

(b) Industrial development – its importance, hinder involved – Remedies

(c) Problems assing out industrialization and urbanization – Remedies

Unit-VI: Educational Needs and Problems

(a) Purposes and importance. system of education its purpose and levels.

(b) Existing educational needs and problems – then remedies.

(c) Future requirements

(d) Importance of guidance and counselling in educational institutions. Causes of failure in Pakistan

(e) Adult education – hurdles involved – its need and importance

(f) Education and National Development

Unit-VII: Health needs and problems

(a) Causes of low health standards and their remedies.

(b) Health education and its importance

(c) Health and national development.

Unit-VIII: Needs of Special Groups

1. Introduction to the needs and problems and solution of:
   (a) Physically handicapped (blind, deaf and dumb, cripped)
   (b) Mentally handicapped.
   (c) Socially handicapped (orphans, widows and destitute women and criminals)
2. Importance of the welfare of the handicapped.

Unit-IX: Social Problems of Pakistan .

(a) Definition and explanation of social problem.

(b) General causes of social problems.

(c) Major social problems of Pakistan : (An orientation)

- Drug addition - illiteracy
- over population - beggary
- Population planning - pollution
- crime, problem of national integration
- child labour

PRACTICAL (Part-I) = 25 marks

1. Students will make observational visit to six different social welfare agencies. They will be provided guide lines for observation before each visit.
2. They will write reports about these visit.

The Recommended break up of marks of the examination is as under:

Report	=	10 marks
Via – voce	=	15 marks

PAPER-II (For 4th Year)

One Compulsory question.

Unit-I: Nature and philosophy of modern social work.

(a) Definition of social work

(b) Objectives of Modern Social work

(c) Basic principles of social work

(d) Professional and voluntary social work

Unit-II: Islam & Social work

(a) Islamic concept of Social Work and modern Social work

(b) Worth and dignity of individuals

(c) Rights and responsibilities of individuals in Islamic Society.

(d) Social relationship in Islam i.e., Family, Neighbourhood, Mosques

Unit-III: Methods of Social Work

A. Primary Methods.

1. Social Case Work

(a) Definition and description of social case work

(b) Objectives, elements/ components of social case work (person, problem, professional person and process)

(c) Principles of social case work

(d) Phases / steps in social case work

(e) Fields of application.

(f) Role of professional worker in case work.

2. Social Group Work

(b) Definition and description of Social Group

(c) Types of social groups (primary and secondary formal and informal groups)

(d) Definition of social group work and its philosophy.

(e) Objectives of social group work.

(f) Components of social group work (group, agency and group worker)

(g) Principles of social group work

(h) Fields of applications

(i) Role of professional worker in group work.

3. Community Development:

Definition and description of community

(a) Definition of community development

(b) Objectives

(c) Phases / steps in community development (study of the community, planning and implementation)

(d) Principles of community development

(e) Role of professional worker in community development.

B. Secondary Methods:

1. Social Research.

(a) Definition and description of social research.

(b) Phases / steps in social research.

(c) Tools of data collection (importance of social research and observation)

(d) Importance of social research in Social Work.

2. Social Welfare Administration:

(a) Definition and description of social welfare administration.

(b) Importance of social welfare administration in social work.

Unit-IV: Fields / areas of social work.

1. School Social work
2. Medical social work
3. Community development as a field
4. Child welfare
5. Youth welfare
6. Women welfare
7. Welfare of the physically handicapped such as blind, deaf and dumb and crippled
8. Welfare of the mentally handicapped (retarted)

9. Welfare of the socially handicapped such as widows, destitute women
10. Welfare of the juvenile and adult criminals

Unit-V: Social welfare agencies

(a) Definition and description of social welfare agency

(b) Types of social welfare agencies

(c) Role of the voluntary social welfare agencies in socio-economic development.

PRACTICAL (Part-II)

Students will be assigned to work for two of the following activities.

1. Organizing recreational group
2. Helping patients in hospital
3. Helping a local welfare agency in its programmes.
4. Experience in structured interviews
5. Experience in interview and recording.

The Recommended break up of marks of the examination is as under:

Report	=	10 marks
Via – voce	=	15 marks

Curriculum in Sociology for BA Degree Courses

The curriculum of sociology for B.A degree courses has been divided into two parts/ papers to be taken at the 1st and 2nd year of the degree course respectively.
a. Introduction to sociology
b. Social problems and social research

PAPER-I
INTRODUCTION TO SOCIOLOGY

1. Introduction
1.1 Nature, scope, and subject matter of sociology
1.2 Brief historical development of sociology
1.3 Introduction to Quranic sociology
1.4 Society and community
1.5 Relationship with other social sciences like Economics, Political Science, History, Psychology, and Anthropology
1.6 Social interaction processes
1.6.1 (i) cooperation (ii) competition (iii) conflict (iv) accommodation (v)acculturation (vi) assimilation

2. Social groups
2.2 Definition and functions
2.3 Types of social groups
2.3.1 (i) In and out groups (ii) primary and secondary groups (iii) reference groups (iv) formal and informal groups (v) pressure groups

3. Social institutions
3.1 Definition, structure and functions of the following Institutions
(i)family (ii) religion (iii) education (iv) economic (v) political
3.2 Inter-relationships among various social institutions

4. Culture and related concepts
4.1 Definition and aspects of culture
(i) Material and non-material culture (ii) Ideal and real culture
4.2 Elements of culture
(i) beliefs (ii) values (iii) norms (folkways, mores, laws) and social sanctions
4.3 Organization of culture
(i) traits (ii) complexes (iii) patterns
4.4 Other related concepts
(i) cultural relativism (ii) sub-cultures (iii) ethnocentrism (iv) cultural lag

5. Socialization and personality
5.1 Role and status
5.2 Socialization
5.3 Culture and personality

6. Deviance and social control
6.1 Definition and types of deviance
6.2 Juvenile delinquency
6.3 Formal and informal methods of social control

7. Social stratification
7.1 Determinants of social stratification

7.1.1 (i) caste (ii) class (iii) ethnicity (iv) power (v) prestige (vi) authority
7.2 Social mobility: definition and types
7.3 Dynamics of social mobility.

8. Social and cultural change

8.1 Definition of social change
8.2 Dynamics of social change
8.2.1 (i) education (ii) innovation (iii) industrialization (iv) urbanization and diffusion
8.3 Impact of globalization on society and culture
8.4 Resistance to change

9. Collective behavior

9.1 Definition
9.2 Characteristics
9.3 Causes
9.4 Types
9.5 Social movements
9.6 Mob and crowd behavior

Books recommended

1. Ali, M Basharat (1971) Laws and Principles of Quranic Sociology,Jamiat-ul-falah Publications, Karachi
2. Allama Iqbal Open University (1990) Sociology 1: Islamabad
3. Allama Iqbal Open University (1990) Sociology 2: Islamabad
4. Horton, Paul B. and Hunt, Chester L. (1990) Sociology Singapore:McGraw Hill Book Company.
5. M. Haralambes and Holborn (1991). Sociology themes and Perspectives. London: Collin Educational, an Imprint of Harper Collins Publishers.
6. Taga, Abdul Hameed (2000) An Introduction to Sociology, Lahore.
7. Thio, Aex (latest ed.). Sociology- An Introduction. New York: Harper and Row

Reference books

1. Bertrnad, Alvin L. (1969). Basic Sociology-An Introduction to Theory and Methods, New York; Appleton Century Crofts.
2. Broom, Leonard and Selznic. Phillips, Sociology A Text with Adopted Readings, New York: Harper and Row Publishers.
3. Curran, Jr. (1977). Introductory Sociology ,A Basic Self Instructional Guide.
4. Davis, Kingsley (latest ed.), Human Society, Princeton University Press.
5. Hafeez, Sabeeha (1991), The Changing Pakistan Society, Karachi:Royal Book Company, Zaibunisa Street, Sadar.
6. Horton Paul B. and Hunt, Chester L. (1990), Sociology Singapore*:*McGraw Hill Book Company.Koening, Samuel (1957). Sociology- An Introduction to the Science of Society, New York: Barnes and Noble Books, Harper and Row Publishers.
7. Inkeles, Alex (latest ed.) What is Sociology? - An Introduction to the Discipline and Profession, Foundations of Sociology Series Englewood Cliffs, N.J.Prentice Hall Inc.
8. Lamba, P. S. & S. S. Salanki (1992). Impact of urbanization and industrialization on rural society. New Delhi: Wiley Eastern Limited.
9. Lee, Alfred Mcbuing and Lee, Elizabeth Braint (1961) Marriage and the family*,* New York: Barnes and Noble, Inc.
10. Merrill, F.E., (latest.ed), Society and Culture, N.J. Englewood Cliffs.
11. Perry, John A., and Perry, Ernak (1988). The Social Web-An Introduction to Sociology New York: McGraw Hill Book Co., Inc.
12. Phillips, Bernard (1990). Sociology-From Concepts to Practice, New York: MacGraw Hill Book Company Inc.
13. Rao, C.N. Shaukar (1990). *Sociology*, New Delhi; S.C. Chand and Company Ltd.
14. Thio, Aex (latest ed.). Sociology- An Introduction. New York: Harper and Row.

Paper II
SOCIAL PROBLEMS AND SOCIAL RESEARCH

1. Contemporary major social problems in Pakistan
1.1 Definition of social problem
1.2 Characteristics of social problem
1.3 Major social problems of Pakistan
- 1.3.1 Population growth
- 1.3.2 Crime and juvenile delinquency
- 1.3.3 Consequences of urbanization
- 1.3.4 Illiteracy
- 1.3.5 Rural underdevelopment
- 1.3.6 Gender disparity
- 1.3.7 Poverty and unemployment
- 1.3.8 Marriage and family problems
- 1.3.9 Drug abuse
- 1.3.10 Violence
- 1.3.11 Social injustice
- 1.3.12 Poor health of populations

2. Social research
2.1 Introduction
2.2 Functions of research

3. Types of social research
3.1 Descriptive
3.2 Exploratory/explanatory
3.3 Qualitative and quantitative research

4. Steps in social research[1]
4.1 Identification of research problem
4.2 Objectives of research
4.3 Review of relevant literature
4.4 Tools of data collection: questionnaire and interview guide
4.5 Sampling design
- 4.5.1 Probability sampling: simple random and stratified random
- 4.5.2 Non-probability sampling: accidental and purposive, snow-ball technique

4.6 Data collection
4.7 Data analysis:
- 4.7.1 Measures of central tendency: percentages and averages, mean, median, and mode
- 4.7.2 Coding and memoing

4.8 Data interpretation

5. Research proposal development
5.1 Concepts, models, paradigms
5.2 Computer applications in research
5.3 Writing a research paper

6. Community development in Pakistan
6.1 History of community development in Pakistan
6.2 Various approaches to community development

1 Under the guidance of the Teacher, each regular student opting Sociology as an optional subject shall be required to develop a Research Project
based on a Social Problem of Pakistan. The Paper setter will set one compulsory question on a project on one of the major social problems of
Pakistan. The emphasis will be on survey research.

6.3 Role of governmental and non-governmental organizations in community development

Books recommended

1. Baily, K.D. (2000). Methods of Social Research, New York: The Free Press.
2. Baker, Therese L. (1999). Doing Social Research, New York: The Free Press.
3. Horton, Paul B. and Leslie Gerald R. (latest ed.). The Sociology of Social Problems, New York: Appleton Century Crofts.

Reference Books

1. Booth, David (1994). Rethinking Social development Theory. London: Longman Scientific and Technical.
2. Horton, Paul B. and Leslie Gerald R. (latest ed.). The Sociology of Social Problems, New York: Appleton Century Crofts.
3. Loraines, Blaxter, Christina Hughes and Malcom Tight (1999). How to Research. Viva Book Pvt. Ltd. Mumbay.
4. Malcom Waters (1994). Modern Sociological Theory. London: Sage Publications.
5. Nordskog, John E. (latest ed.). Analyzing Social Problems, New York;Henry Holt Inc.
6. Phillips, Harold A. and Henderson, David (latest ed.). Contemporary Social Problems, Englewood Cliffs, New Jersey; Prentice Hall Inc.
7. Senter, R.J. (1969). Analysis of Data - Introductory Statistics for the Behavioural Sciences. Illinois; Scott Freeman and Company.
8. Young, Pauline, V. (1990). Scientific Social Surveys and Research, Tokyo: Charles E. Tutrttle Co.

STATISTICS

NOTE: Students will be asked to attempt FIVE questions of equal marks including a compulsory question comprising of parts with short answers from the whole syllabi and another four question for the remaining questions.

B.A. / B.Sc. (For 3rd Year)

Paper-I	38 marks
Paper-II	37 marks
Practical	25 marks

B.A. / B.Sc. (For 4th Year)

Paper-III	38 marks
Paper-IV	37 marks
Practical	25 marks

OUTLINE OF THE SYLLABUS

PAPER-I

1. Descriptive Statistics 1/7

Definition of statistics, meaning of descriptive and inferential statistics, population and sample, types of variable, collection of data (primary and secondary data), presentation of data by frequency graphs (histogram, frequency polygon, frequency curve and ogive curve). Measures of central tendency, A.M., G.M., H.M., Mode, Median, Quartiles, deciles, percentiles, properties of mean with proofs, weighted A.M., empirical relation between mean, median, modes. Merits and De-merits of various averages.

2. **Measure Of Dispersion And Moments 1/7**

Measures of dispersion (Absolute and relative measures) Range, Mean Deviation, variance, standard deviation, Co-efficient of mean deviation, properties of variance & standard deviation without proofs, moments, moments ratios, Sheppard's corrections, kurtosis and skew ness.

3. **Index Number (1/7)**

Importance of Index Number, problems in the construction of whole sale price Index numbers, fixed and Chain base methods, weighted Index numbers, Laspeyres, Paasche's, Fisher's Ideal and Marshal Edgeworth, Types of indices, test for the consistency of Index numbers, Uses and limitations of I.N.

4. **Method Of Least Squares: (1/7)**

Scater diagram. Principal of least square. Deduction and solution of normal equation of general lincar model. Curve fitting. Equations of approximating curve by the method of east squares upto third degree polynomials. Fitting of exponential of the (1) $y = ae^{bx}$ (2) $y = ab^{x}$ (3) $y = ax^{b}$ Graphic representation of the vurces. Interpolation and Extrapolation graphically. Criterial for fitting and suitable curve.

5. **Time Series** 1/7

Time series, component of a time series, analysis of time series, measurement of secular trend and seasonal variations by various methods, deseasonalization of data.

6. **Regression Analysis: 1/7**

Regression models. Simple linear regression, least square estimates, properties of least squares regression line, standard error of estimate, co-efficient of determination. Multivariate linear regression with two regressors, co-efficient of multiple determination. Proof of regression line regression co efficient and standard error.

7. **Correlation Analysis: 1/7**

Linear correlation. Correlation co-efficient and its properties with proof. Correlation of bivariate frequency distribution . partial and multiple correlation for three variables. Rank correlation. Tied ranks.

OUTLINE OF THE SYLLABUS

PAPER-II

1. Probability: 2/7

Random experiments, sample space and events, definitions and axioms of probability, counting techniques, laws of probability with proof, independence of events, Bayes' theorem (proof is not required)

2. Random Variable: 2/7

Random variable, discrete and continuous random variables, distribution function, probability distribution of a discrete and a continuous random variable, joint distributions of random variable (discrete) Marginal and conditional distributions, without Proof. mathematical expectation, properties & its proofs,numerical problems of mean, variance, moments, concept of moment a generating function properties.

3. **Discrete Probability Distribution: 2/7**

Uniform, Bernouli, Binomial, Hypergeometric, poisson distributions, mean, variance and shape and their properties, (detailed mathematical derivations are not required) and application of these distributions with examples from various fields.

4. **Continuous Probability Distribution: 1/7**

Continuous random variables, Uniform and Normal distributions, Mean, variance and shape of these distribution with their properties (with proof) of mean variance M.D Mode and medium. Application of these distributions, Normal approximation to the Binomial and Poisson distribution (just application not proof). Fitting of Normal distribution by area method.

OUTLINE OF THE SYLLABUS

PAPER-III (for 4th Year)

1. Sampling: 1/7

Basic concepts and terminology, advantages of sampling, probability and non probability sampling, sampling and non-sampling errors, sampling designs of simple random, stratified, systematic and cluster sampling, random numbers and their use in sampling, judgement and quota sampling.

2. **Sampling Distribution: 2/7**

Sampling distribution of a statistic and its standard error, distribution of sample mean, sample proportion, difference between two sample means and two sample proportions, central limit theorem with illustrations (proof not required).

3. **Statistical Inferences: 1/7**

Nature of statistical inference, point and interval estimation of parameters, properties of point estimators, not mathematical derivation confidence interval

and its interpretation. Problems about confidence limit for α, β, mean and variance large and small samples.

4. **Testing of hypotheses 2/7**

Null and alternative hypotheses, simple and composite hypotheses, Type-I and Type-II errors, level of significance, acceptance and rejection regions, power of a tests, one sided and two sided tests, procedure, inference about single mean and difference between mean for paired and unpaired observations. Inference about proportion and difference between two proportions. Determination of sample size for estimating means.

5. **Inference about Variance: 1/7**

Interval Estimation and test of hypothesis about population variance and equality of two variances.

OUTLINE OF THE SYLLABUS

PAPER-IV (for 4th Year)

1. **Analysis Of Variance: 1/7**

Definition, importance and assumption of Analysis of Variance, partitioning of sum of square and degrees of freedom in one-way classification. Testing the equality of means for one-way classification and two way classification.

2. **Analysis of Experimental Designs:** 2/7

Basic principals of experimental design. Completely randomised, randomised complete block and Latin square designs. Description, layout, statistical analysis andvantages and disadvantages of these designs. Relative efficiency of three basic designs. The least significant difference.

3. Regression and Correlation Analysis: 1/7

Standard Error of estimates and test of hypothesis about parameters. Testing of correlation co-efficient rank correlation co-efficient simple, partial and multiple correlation.

4. Non-Parametric Methods: 1/7

Introduction to non-parametric methods, sign test, runs test, Mann-whitney U tests, of wilcoxon signed Rank list.

5. The Chi Square Test: 1/7

The Chi-square test for goodness of fit of binomial, Poisson and normal distribution (with area method) Contingency tables, Yates correction for continuity, coefficient of contingency. The chi-square test for independence.

6. VITAL STATISTICS 1/7

Definition of vital events and vital statistics. Uses and shortcoming of vital statistics. Sources of demongraphic data. Vital rates and ratios: Sex and child woman ratio. Vital Index, Crude, specific and standarised birth rates, general and specific fertility rates. Reproduction rates: Gross and net reproduction rates. Census, registration system of deaths and births in Pakistan.

Statistics Practicals

The practical will comprise of numerical problems from the topics in paper I and II for 3rd year and Paper-II & IV for 4th year.

Division of Marks for Practical in each paper.

Numerical problems	8+8	marks
Viva + N.B.	5+4	marks

Books Recommended

1. Spiegal, M. R.Schiller, J.L. and Srinivasan R.L. (2000). Probability and Statistics, end Ed. Schaums Outline Series. McGraw Hill, New York.
2. Spiegel, M. R. and Stephens, L. J. (1999). Statistics, 3rd Edition, McGraw Hill, New York.
3. Chaudhry, S.M. &~Kamal, S. (1998), Introduction to Statistical Theory Pans I & llJ Ilmi kutab khana, Urdu Bazar, Lahore.
4. Chaudhry, R.M. (1998). Polymer Modem Statistics, Polymers, Urdu Bazar, Lahore.
5. Beg, M.A. and Mirza, M.D.(1 997). Statistics: Theory and Methods, Volumes I and II. Caravan Book House, kutechery Road, Lahore.
6. Haq Masood-ul, (1983), Foundation of Probability and Statistics, Tahir Sons, Urdu Bazar, Karachi.
7. . Walpole. R. E., (1982). Introduction to Statistics, (4th Ed). MacMillan Publishing Co., New York.

یونیورسٹی آف گجرات

سالِ چہارم ''اردو ادب'' حصہ نثر

۱۔مکاتیب۔

خطوطِ غالب: تین خط بنام ہرگوپال تفتہ۔

'' یوسف مرزا

'' مرزا علاوالدین احمد خان

۲۔مضامین۔

تعصب۔ سرسید احمد خان

سینما کا عشق پطرس بخاری

۳۔انشائیہ

کافی مشتاق احمد یوسفی

۴۔تنقید و تحقیق

نظم اردو کی تاریخ محمد حسین آزاد

شاعری کی حقیقت مولانا شبلی نعمانی

۵۔سوانح عمری

حیاتِ جاوید ''محنت و جفاکشی'' از حالی

۶۔ سفرنامہ

اب ہم فرینکفرٹ میں ہیں ابنِ انشاء

۷۔ خاکہ نگاری

سر اقبال مرحوم رشید احمد صدیقی

حصہ غزل

۱۔ولی دکنی — حمدیہ غزل ایک

؎ عیاں ہے ہر طرف عالم میں حسنِ بے حجاب اس کا

۲۔خواجہ میر درد — تین غزلیں

؎ دنیا میں کون کون نہ یک بار ہو گیا

؎ ان نے کیا تھا یاد مجھے بھول کر کہیں

؎ کیا فرق داغ و گل میں کہ جس گل میں بو نہ ہو۔

۳۔میر تقی میر — تین غزلیں

؎ کئی دن سلوک وداع کا مرے درپے دل زار تھا

؎ مہر کی تجھ سے توقع تھی ستم گر نکلا

؎ آئی ہے اس کے کوچے سے ہو کر صبا کچھ اور

۴۔مرزا اسد اللہ خان غالب — تین غزلیں

؎ گئی وہ بات کہ ہو گفتگو تو کیونکر ہو

؎ ہر ایک بات پہ کہتے ہو تم کہ تو کیا ہے

؎ کی وفا ہم سے تو غیر اس کو جفا کہتے ہیں

۵۔مرزا داغ دہلوی — تین غزلیں

؎ شرر و برق نہیں شعلہ و سیماب نہیں

؎ کیا ذوق ہے کیا شوق ہے سو مرتبہ دیکھوں

؎ میں کیا کروں بلا سے جو تو مہرباں ہے اب

۶۔علامہ محمد اقبال — تین غزلیں

؎ خرد نے مجھ کو عطا کی نظرِ حکیمانہ

؎ دگرگوں ہے جہاں، تاروں کی گردش تیز ہے ساقی۔

؎ میر سپاہ ناسزا لشکریاں شکستہ صف

۷۔خواجہ حیدر علی آتش — تین غزلیں

؎ وحشتِ دل نے کیا ہے وہ بیاباں پیدا

؎ اگر چہ پاسِ محبت سے ترکِ شیون تھا
؎ جگر کو داغ میں مانندِ لالہ کیا کرتا؟

۸۔ناصر کاظمی دو غزلیں

؎ محرومِ خواب دیدۂ حیراں نہ تھا کبھی
؎ شہر در شہر گھر جلائے گئے۔

۹۔مولانا حسرت موہانی دو غزلیں

؎ تاثیرِ برقِ حسن جوان کے سخن میں تھی
؎ ستم تم چھوڑ دو، میں شکوہ سنجی ہائے ناچاری۔

۱۰۔یاس یگانہ چنگیزی۔ دو غزلیں

؎ ہنوز زندگی تلخ کا مزا نہ ملا
؎ روشن تمام کعبہ و بت خانہ ہو گیا۔

''حصہ ب''

الف تاریخ ادب اردو (ادوار)

''حصہ شاعری''

۱۔میر اور سودا کا دور۔
۲۔اردو شاعری کا لکھنوی دور
۳۔غالب اور مومن کا دور۔

ب تنقید

''ہماری شاعری'' از مسعود رضوی ادیب

ج ادبی اصلاحات

فصاحت، بلاغت، عینیت، داخلیت، خارجیت، آفاقیت، سہل ممتنع، معاملہ بندی، کلاسیکیت، رومانویت، علامتیت، حقیقت نگاری، وجودیت، نرگسیت، مضمون آفرینی۔

د۔مضمون

تنقیدی اور ادبی موضوعات پر

نصابی کتابیں جو نصاب پر مبنی ہیں

۱۔ اردو ادب بی اے سال اول، دوم

مرتبہ حافظہ شبنم طاہرہ

شعبہ اردو فاطمہ جناح کالج

فوارہ چوک گجرات۔

۲۔نثری ادب۔ڈاکٹر سید معین الدین

۳۔افسانوی ادب۔ڈاکٹر سہیل احمد خان

۴۔شعری ادب۔ڈاکٹر خواجہ محمد ذکریا

نصاب کی سوالیہ تقسیم برائے سال چہارم اردو ادب کل نمبر ۱۰۰

نثری ادب

الف حصہ +ب حصہ	۱۰۰ نمبر
۱۔سیاق وسباق مع تشریح نثر پارہ	۱۵
۲۔غزلیات تشریح اشعار	۱۵
(جزو یا انفرادی اشعار پر مشتمل ہوسکتا ہے)	
۳۔اصناف یا حالات زندگی بمعہ اسباق	
مصنف/شاعر پر معروضی سوال	۱۰

ب حصہ

۴۔تاریخ ادب اردو (اردو ارشاعری) پر	
تنقیدی سوال	۱۵
۵۔تنقید نگاری (از مسعود رضوی) پر	
تنقیدی سوال	۱۵
۶۔ادبی اصطلاحات پر (گرامر)	
(فصاحت، بلاحت وغیرہ) سوال	۱۰
۶۔ادبی وتنقیدی موضوع پر	
مضمون	۲۰

سالِ سوئم

		پرچہ الف
حصہ نثر		
داستان	باغ و بہار۔میر امن	
ناول۔	ابن الوقت۔	نذیر احمد
	خونِ جگر ہونے تک۔	فضل احمد کریم فضلی
	فردوسِ بریں۔	عبدالحلیم شرر
افسانہ۔	مفت کرم داشتن	پریم چند
	فنیسی ہیر کلنگ سیلون	غلام عباس
	گانو	اشفاق احمد
	وحشی	احمد ندیم قاسمی
	یاں آگے درد تھا	انتظار حسین
علاقائی ادب۔ترجمہ		
(بلوچی)	محشر۔	غوث بہار
ڈرامہ		
	چنگاری	مرزا ادیب
شاعری۔		
نعتیہ قصیدہ۔	مرزا رفیع سودا	
مرثیہ۔	میر انیس	
مثنوی	میر حسن	
رباعیات (۳)	جوش ملیح آبادی	

قطعات (۲) اکبرالہ آبادی

نظم۔

بنجارہ نامہ	نظیر اکبرآبادی
مناجاتِ بیوہ	حالی
طلوع اسلام	علامہ اقبال
ترانہ ملی	علامہ اقبال
ٹیپو سلطان	علامہ اقبال
شاہنامہ اسلام	حفیظ جالندھری
طلوع فرض	مجید امجد

آزاد نظم

زندگی	فیض احمد فیض
تیل کے سوداگر	ن۔م راشد
فصلِ بہاراں میں شہر کے فکر۔	منیر نیازی

''حصہ ب''

تاریخ ادب اردو۔ حصہ نثر تنقید کی سوالات

فورٹ ولیم کالج کی نثری خدمات

مکاتیبِ غالب کی خصوصیات

سرسید احمد خان اور اُن کے دور کی نثر

(ج)

علمِ بیان ۔تشبیہ استعارہ ۔مجازِ مرسل کنایہ

(د) علمِ عروض۔ تقطیع ۔بحرِ حزج ۔رجز ۔متقارب ۔رمل۔

یا

علم بدیع ۔جس میں ایہام مراعات النظیر ،لف ونشر ۔تجنیسِ تام

نصاب کی سوالیہ تقسیم برائے سالِ سوم　　اردو ادب　　کل نمبر ۱۰۰

افسانوی ادب

الف حصہ　　۵۰ نمبر

۱۔ سیاق وسباق مع تشریح نثر پارہ　　۱۵

۲۔ تنقیدی سوال، اصناف شاعری ونثر　　۱۵

کلاسیکی وجدید نظم گو شعراء

۱۔ اشعار کی تشریح　　۱۵

۲۔ معروضی　　۰۵

ب حصہ　　۵۰ نمبر

۱۔ مصنف/ شاعر کے بمعہ اسباق

حالات زندگی پر تنقیدی سوال　　۱۵

تاریخ ادب اردو (ادوار۔نثر)　　۱۵

۲۔ علم بیان　　(گرامر)　　۱۰

۳۔ علم عروض/ علم بدیع　　۱۰

ZOOLOGY

The following syllabus has been prepared in accordance with the criteria announced by the Higher Education Commission of Pakistan.

SCHEME OF STUDIES:

PART-I (3RD YEAR)

Paper-I, Biodiversity-I (Invertebrate)	38 marks
Paper-II, Principle of Cell Biology & Genetics	37 marks
(Cell Biology, Genetics, Biochemistry, Animal Behaviour)	
Practical based on Paper-I & II	25 marks

Time 4 hours

PART-II (4th Year)

Paper-III, Biodiversity-II (Chordates)	38 marks
Paper-IV, Form & Function (Comparative Perspective)	37 marks
Practical based on Paper-III & IV	25 marks
Time 4 hours	

DETAIL OF COURSES

PAPER-I (Biodiversity - I) (invertebrate)

1. **Place of Zoology In Science:**
   A One-world view: Genetic Unity,-The Fundamental Unit of life, Evolutionary Oneness and the Diversity of Life, Environment and World Resources; What is zoology? The Scientific Method
2. **Introduction:**
   Classification of Organisms; Evolutionary Relationships and Tree Diagrams, Patterns of Organization.
3. Animal-like Protists: The Protozoa
   Evolutionary Perspective; Life within a Single Plasma Membrane; Symbiotic Life styles. Protozoan Taxonomy: (upto phyla, subphyla and superclasses, wherever applicable). Pseudopodia and Amoeboid Locombtion; Cilia and Other Pellicular Structures; Nutrition; Genetic Control and Reproduction; Symbiotic Ciletes;

Further Phylogenetic Considerations.

4. Multicellular and Tissue Levels of Organization:
   Evolutionary Perspective: Origins of Multicellularity; Animal Origins. Phylum Porifera: Cell Types, Body Wall, and Skeletons; Water Currents and Body Forms; Maintenance Functions; Reproduction. Phylum Cnidaria (Coelenterata) The Body Wall and Nematocysts; Alternation of Generations, Maintenance Functions; Reproduction and Classification up to class. Phylum Ctenophora; Further Phylogenetic Considerations.
5. The Triploblastic, Acoelomate Body Plan:
   Evolutionary Perspective; Phylum Platyhelminthes: Classification up to classes, The Free Living Flatworms and the Tapeworms; Phylum Nemertea; Phylum Gastrotricha Further Phylogenetic Considerations.
6. The Pseudocoeiomaie Body Plan: Aschelminths
   Evolutionary Perspective; General Characteristics; -Classification up to phyla with External Features; Feeding and the Digestive System; Other Organ Systems; Reproduction and Development of phylum Rotifera and phylum Nematoda; Phylum Kinorhyncha. Some Important Nematode Parasites of Humans; Further Phylogenetic Considerations.
7. Molluscan Success:
   Evolutionary Perspective: Relationships to other Animals; Origin of the Coelom; Molluscan Characteristics; Classification up to class. The Characteristics of Shell and Associated Structures, Feeding, Digestion, Gas exchange, Locomotion, Reproduction and Maintenance Functions and Diversity in Gastropods, Bivalves and. Cephalopods, Further Phylogenetic Considerations.
8. Annelida: The Metameric Body Form
   Evolutionary Perspective: Relationship to other Animals, Metamerism and Tagmatization; up to class. External Structure and Locomotion, Feeding and the Digestive System, Gas Exchange and Circulation, Nervous and Sensory Function, Excretion Regeneration, Reproduction and Development, in Polychaeta, Oligochaeta and Hirudinea; Further Phylogenetic Considerations.
9. The Arthropods: Blueprint for Success
   Evolutionary Perspective: Classification and Relationships to Other Animals; Metamerism and Tagmatization; The Exoskeleton; Metamorphosis; Classification

up to class; Further Phylogenetic Considerations.

10. The Hexapods and Myriapods: Terrestrial Triumphs
    Evolutionary Perspective; Classification up to class External Structure and Locomotion, Nutrition and the Digestive System, Gas Exchange, Circulation and Temperature Regulation, Nervous and Sensory Functions, Excretion, Chemical Regulation, Reproduction and Development in Hexapoda; Insect Behavior, Insects and Humans; Further Phylogenetic Considerations.
11. The Echinoderms
    Evolutionary Perspective: Relationships to other Animals; Echinoderm Characteristics; Classification up to class. Maintenance Functions, Regeneration, Reproduction, and Development in Asteroida, Ophiuoidea, Echinoidea, Holothuroidea and Crinoidea; Further Phylogenetic Considerations: Some leser Known lnvertebrates; The Lophophorates, Entoprocts, Cycliophores, and Chaetognaths.

Practical based on Paper -1 Biodiversity-I (Invertebrates)

1. Study of Euglena, Amoeba , Entomoeba, Plasmodium, Trypanosoma, Paramecium as representative of animal like protists (prepared slides).
2. Study of sponges and their various body forms
3. Principal representatives of classes of phylum Cnidaria (Coelenterata)
4. Principal representatives of classes of phylum Platyhelminthes
5. Representative of phylum Rotifera, phylum Nematoda.
6. Principal representative of classes of phylum Mollusca.
7. Principal representative, as of classes of phylum Annelida
8. Principal representatives of classes of phylum Arthropoda and Echinodermate.
9. Dissection
   (a) Earthworm or Leech
   (b) Cockroach or Locust
   (c) Freshwater muscle
   (Study of all major system)
11. Brief notes on medical' economic importance of the following. Plasmodium, Entamoeba histolytica Leishmania, liverfluke, Tapeworm, Earthworm, Silkworm

Citrus butterfly.

12. Preparation of permanent stained slides of the followings:
Paramecium, Obelia, Daphnia, Cestode, Parapodia of Nereis:

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DETAIL OF COURSES

PAPER-II (Principle of cell biology) (Genetics)

1. The Chemical Basis of Animal Life
Atoms and Elements: Building Blocks of All Matter; Compounds Molecules: Aggregates of Atoms; Acids, Bases, and Buffers; The Molecules of Animals: Fractional account of Carbohydrates, Lipids, Proteins, Nucleotides and Nucleic Acids based on their' structural aspects.
2. Cells, Tissues, Organs, and Organ System of Animals:
Structure and Functions of Cell Membranes; Various movements across Membranes; Cytoplasm, Organelles, and Cellular Components: Functional account of Ribosomes, Endoplasmic Retculum, Golgi Apparatus, Lysosomes Mitochondria, Cytoskeleton, Cillia and Flagella, Centrioles and Microtubules, and Vacuoles based on their structural aspects. The Nucleus: Nuclear envelope, Chromosomes and Nucleolus. Tissues Diversity in Epithelial Tissue, Connective Tissue, Muscle Tissue and Nervous Tissue to perform various functions. Structural integrations for functions in Organs and Organ Systems.
3. Energy and Enzymes: Life's Driving and Controlling Forces
Energy and the Laws of Energy Transformation; Activation Energy, Enzymes: Structure, Function and Factors Affecting their Activity; Cofactors and Coenzymes; ATP: How' Cells convert Energy? An Overview.
4. How Animals Harvest Energy Stored in Nutrients:
Glycolysis: The First Phase of Nutrient Metabolism, Fermentation: "Life without Oxygen"; Aerobic Respiration. The Major Source of ATP; Metabolism of Fats and Proteins; Control of Metabolism; The Metabolic Pool.
5. Cell Division
Mitosis, Cytokinesis, and the Cell Cycle: An Overview; Control of the Cell Cycle; Meiosis: The Basis of Sexual Reproduction; Gamete Formation.
6. Inheritance Patterns:
The Birth of Modern Genetics; Mendelian Inheritance Patterns, Other inheritance

Patterns; Environmental Effects and Gene Expression.

7. Chromosomes and Gene Linkage:
   Eukaryotic Chromosomes; Linkage Relationships, Changes in Chromosome Number and Structure
8. Molecular Genetics: Ultimate Cellular Control
   DNA: The Genetic Material; DNA Replication in Eukaryotes; Genes in Action; Control of Gene Expression in Eukaryotes, Mutations; applications of Genetic Technologies. Recombinant DNA.
9. Ecology II: Individuals and Populations
   Animals and Their Abiotic Environment Populations; Interspecific Interactions
10. Ecology II: Communities and Ecosystem:
    Community Structure and Diversity; Ecosystems; Ecosystems of the Earth; (Terrestrial and Aquatic) Ecological Problems, Human Population Growth, Pollution, Resource Depletion and Biodiversity.,
11. Animal Behuviour
    Four Approaches to Animal Behaviour; Proximate and Ultimate Causes; Anthropomorphism, Development of Behavior; Learning, Control of Behavior;' Communication; Behavioral Ecology; Social Behavior.

Principle of Cell Biology & Genetics

PRACTICALS (based on Paper- II)

1. Tests for different carbohydrates, proteins and lipids. (Emphasis on the concept that tests materials have been ultimately obtained from living organisms).
2. Study of the prepared slides of squamous, cuboidal, columnar, epithelial tissues, adipose, connective, cartilage bone, blood, nervous, skeletal muscle, smooth muscle and cardiac muscle tissues.
3. Plasmolysis and deplasmolysis in blood.
4. Protein digestion by pepsin.
5. Study of mitosis in onion root tip.
6. Study of meiosis in grass hopper testis (students should prepare the slide).
7. Problem based study of Mendelian ratio in animals.
8. Multiple alleles study in blood groups.
9. Survey and study of a genetic factor in population and its frequency.

10. Study of karyotypes of Drosophila/Mosquito.
11. Study of cytochemical demonstration of DNA and RNA in protozoa and avian blood cell
12. Study of stages in the development of an Echinoderm.
13. Study of early stages in the development of a frog, chick and a mammal.
14. Demonstration of social behaviour (documentary film be shown).
15. Ecological notes on animals of a few model habitats.
16. Field observation and report writing on animals in their ecosystem (a terrestrial and an aquatic ecosystem study):
17. Study of Human Blood Groups.
18. Study of Human Blood Cell.

PART –II (PAPER III)

Biodiversity II chordates

1. Hemichordata and Invertebrate Chordates
   Evolutionary Perspective: Phylogenetic Relationships; Classification up to subphylum or class where applicable; Further Phylogenetic Considerations.
2. The Fishes: Vertebrate Success in Water
   Evolutionary perseptive: Phylogentic relationship, survey of ------ Agnatha and Gnathostomata; Evolutionary Pressures: Adaptations in Locomotion Nutrition and the Digestive System, Circulation, Gas Exchange, Nervous and Sensory Functions, Excretion and Osmoregulation Reproduction and Development; Further Phylogenetic Considerations.

3 Amphibians: The First Terrestrital Vertebrates
Evolutionary Perspective: Phylogenetic Relationships; Survey of Order Caudata, Gymnophiona, and Anura. Evolutionary Pressures: Adaptations in External Structure and Locomotion, Nutrition and the Digestive System, Circulation, Gas Exchange, Temperature Regulation, Nervous and Sensory Functions, Excretion and Osmoregulation, Reproduction, Development, and Metamorphosis; Further Phylogenetic Considerations.

4. Reptiles: The First Amniotes
   Evolutionary Perspective: Cladistic Interpretation of the Amniotic Lineage; Survey of Order Testudines or Chelonia, Rhynchocephalia, Squamata, and Crocodilla; Evolutionary Pressures: Adaptations in External Structure and

Locomotion, Nutrition and the Digestive System, Circulation, Gas Exchange, and Temperature Regulation, Nervous and Sensory Functions, Excretion and Osmoregulation, Reproduction and Development; Further Phylogenetic Considerations.

5. Birds: Feathers, Flight, and Endothermy
   Evolutionary Perspective: Phylogenetic Relationships; Ancient Birds and the Evolution of Flight; Diversity of Modern Birds; Evolutionary Pressures: Adaptation in External Structure and Locomotion, Nutrition and the Digestive System, Circulation Gas Exchange, and Temperature Regulation, Nervous and Sensory Systems, Excretion and Osmoregulation, Reproduction and Development; Migration and Navigation.
6. Mammals: Specialized Teeth, Endothermy, Hair, and Vivipaitiy
   Evolutionary Perspective: Diversity of Mammals; Evolutionary Pressures: Adaptations in External Structure and Locomotion, Nutrition and the Digestive System, Circulation, Gas Exchange, and Temperature Regulation, Nervous and Sensory Functions, Excretion and Osmoregulation, behaviour, Reproduction and Behaviour,
7. Evolution: A Historical Persepective
   Pre-Darwinian Theories of Change; Lamarck: An arly Proponent of Evolution; Early Development of Darwin's Ideas of Evolution and Evidences; The Theory of Evolution by Natural Selection; Evolutionary Thought after Darwin; Biogeography.
8. Evolution and Gene Frequencies
   The Modern Synthesis; A Closer Look; The Hardy-Weinberg Theorem; Evolutionary Mechanisms: Population Size, Genetic Drift, natural Selection, Gene Flow', Mutation, and Balanced Polymorphism; Species and Speciation; Rates of Evolution; Molecular Evolution; Mosaic Evolution.

BIODIVERSITY-II (Chordates)

PRACTICALS

1. Study of representative of Hemichordate and invertebrate chordate.
2. Representative groups of class fishes.
3. Representative groups of class Amphibia.

4. Representative groups of class Reptilia.
5. Representative groups of class Aves.
6. Representative groups of class Mammalia.
7. Field trips to study animal diversity with emphasis on their adaptions.
8. Study of scales in fishes and reptiles; amphibian and mammalian skin; feathers in aves.
9. Skeleton; study of skeleton of Labeo; frog, varanus, fowl and rabbit, adaptation of skeleton to their function should also be studies.
10. Dissection of
    (i) scoliodon (OR) any easily available fish
    (ii) frog
    (iii) uromastix
    (iv) pigeon
    (v) rabbit (for studying the following system.)
        (a) Nervous system
        (b) Digestive system
        (c) Respiratory system
        (d) Circulatory system
        (e) Endocrine system
        (f) Urinogential system

PAPER-IV

FORM & FUNCTION (COMPARATIVE PERSPECTIVE)

ANIMAL FORM AND FUNCTION:

A COMPARLATIVE PERSPECTIVE

1. Protection, Support, and Movement
   Protection: The Integumentary System of Invertebrates and Vertebrates;
   'Movement and Support: The Skeletal System of Invertebrates and Vertebrates;
   Movement: Non-muscular Movement; An Introduction to Animal Muscles; The Muscular System of Invertebrates and Vertebrates.
2. Communication I: Nerves
   Neurons: Structure and Function; Neuron Communication Introductory accounts of Resting Membrane Potential, Action Potential (Nerve Impulse) and

Transmission of the Action Potential between Cells; Invertebrate and Vertebrate Nervous Systems. The Spinal Cord, Spinal Nerves, The Brain, Cranial Nerves and The' Autonomic Nervous System

3. Communication II: Senses

   Sensory Reception: Baroreceptors, Georeceptors, Hygroreceptors, Phonoreceptors, Photoreceptors, Proprioceptors, Tactile Receptors, and Thermoreceptors of invertebrates; Lateral Line System and Electrical Sensing, Lateral-Line System and Mechanoreception, Hearing and Equilibrium in Air, Hearing and Equilibrium in Water, Skin Sensors of Damaging Stimuli, Skin Sensors of Heat and Cold, Skin Sensors of Mechanical Stimuli, Sonar, Smell, Taste and Vision in Vertebrates.

4. Communication III: The Endocrine System and Chemical Messengers

   Chemical Messengers: Hormones Chemistry; and 'Their Feedback Systems; Mechanisms of Hormone Action; Some Hormones of Porifera, Cnidarians; Platyhelminthes, Nermerteans, Nematodes, Molluscs, Annelids, Arthropods, and Echinoderms Invertebration; An Overview of the Vertebrate Endocrine System; Endocrine Systems of Vertebrates other Than Birds or Mammals; Endocrine Systems of Birds and Mammals.

5. Circulation, Immunity, and Gas Exchange

   Internal Transport and Circulatory Systems in Invertebrates: Characteristics of Invertebrate Coelomic Fluid, Hemolymph, and Blood Cells; Transport Systems in Vertebrates; Characteristics of Vertebrate Blood, Blood Cells and Vessels; The Heart and Circulatory Systems of Bony Fishes, Amphibians,' and Reptiles, Birds and Mammals; The Human Heart: Blood Pressure and the Lymphatic System; Immunity: Nonspecific Defenses, The Immune Response; Gas Exchange: Respiratory Surfaces; Invertebrate and Vertebrate ' Respiratory Systems: Cutaneous Exchange, Gills, Lungs, and Lung .Ventilation; Human Respiratory System: Gas Transport.

6. Nutrition and Digestion

   Evolution of Nutrition; The Metabolic Fates of Nutrients in Heterotrophs; Digestion; Animal for Getting and Using Food Diversity in Digestive Structures of Invertebrates and Vertebrates, The Mammalian Digestive System; Gastrointestinal Motility and its Control, Oral Cavity, Pharynx and Esophagus,

Stomach, Small Intestine: Main Site of Digestion; Large Intestine; Role of the Pancreas in Digestion; and Role of the Liver and Gall bladder in Digestion.

7. Temperature and Body Fluid Regulation

Homeostasis and Temperature Regulation; The Impact of Temperature on Animal life; Heat Gains and Losses; Some Solutions to Temperature Fluctuations; Temperature Regulation in Invertebrates, Fishes, Amphibians, Reptiles, Birds and Mammals; Heat Production in Birds and Mammals; Control of Water and Solutes (Osmoregulation and Excretion); Invertebrate and Vertebrate Excretory system; How Vertebrates Achieve Osmoregulation; Vertebrate Kidney Variations; Mechanism in Metanephric Kidney Functions.

8. Reproduction and Development

A sexual Reproduction in Invertebrates; Advantages and Disadaantages of Asexual Reproduction; Sexual Reproduction in Invertebrates; Advantages and Disadvantages of Sexual Reproduction; Sexual Reproduction in Vertebrates; Reproductive Strategies; Examples of Reproduction among Various Vertebrate Classes; The Human Male Reproductive System: Sperm transport and Hormonal Control, Reproductive, Function; The Human Female Reproductive System: Folliculogensis, transport and Hormonal Control, Reproductive Function; Hormonal Regulation in gestation; Prenatal Development and Birth Events of Prenatal Development: The Placenta; Birth, Milk Production and lactation.

9. Descriptive Embryology

Fertilization; Embryonic Development Cleavage and Egg Types; The primary Germ Layers and their Derivatives; Echinoderm Embryology; Vertebrate Embryology: The Chordate Body Plan, Amphibian Embryology, Development in Terrestrial Environments, Avian Embryology, The Fate of Mesoderm.

PRACTICAL (Based on Paper IV)

1. Study of the following prepared slides.
   - (i) Mammalian skin
   - (ii) Arteries & vein
   - (iii) Small & large intestine
   - (iv) Stomach
   - (v) Pancrease
   - (vi) Liver

(vii) Testes

(viii) Ovaries

2. Study of cardiac cycle in Frog.
3. Study of contractility in skeletal muscle of frog.
4. Study of effect of different harmones (adrenaline & acetycholine) on cardiac activity of frog
5. Study of Embryonic development in chick.

IMPORTANT

The minimum details of the titles in the content are from the principle reference book Zoology by Miller and Harley 1999, 2002, which should be kept in view in teaching and assessments. Essay type questions should be avoided. Question preferably be splitted into parts involving different topics.

BOOKS FOR LECTURES

Principal Reference Book:

1. Miller, AS. and Harley, J.B., 1999 & 2002. ZOOLOGY, 4th & 5th Edition (International). Singapore: McGraw Hill. AddWonal Readings:
2. Hickman, C.P., Roberts, L.S. and Larson, A, 2001. INTEGRATED PRINCIPLES OF ZOOLOGY, 11th Edition (International). Singapore: McGraw Hill.
3. Pechenik, J.A, 2000. BIOLOGY OF INVERTEBRATES, 4th Edition (International). Singapore: McGraw Hill.
4. Kent, G.C. and Miller, S., 2001. COMPARATIVE ANATOMY OF VERTEBRATES. New York: McGraw Hill.
5. Campbell, N.A., 2002. BIOLOGY, 6th Edition. Menlo Park, California: The Benjami DLC publishing Company, Inc.

BOOKS FOR PRACTICAL

1. Miller, S.A, 2002. GENERAL ZOOLOGY LABORATORY ~MANUAL. 5th Edition (International) Singapore: McGraw Hill;
2. Hickman, C.P. and Kats, H.L., 2000. LABORATORY STUDIES IN INTEGRATED PRINCIPLES OF ZOOLOGY. Singapore: McGraw, Hill.

نصاب ہوم اکنامکس (سال سوم)

BA (Part-I)

حصہ اول

ا۔ خاندان:

خاندان کی تعریف، خاندان کی اقسام، خاندانی زندگی کا چکر، خاندان کے فرائض منصبی

خاندانی تنازعے اور کشیدگی

کشیدگی کی وجوہات، خاندان کی تنظیم نو، خاندان میں بحران، طلاق کی اقسام، طلاق کے اثرات

ب۔ لباس:

i) اسلام میں لباس کا تصور

ii) بچوں کے ملبوسات

شیر خوار بچوں کے ملبوسات اور ان کی خصوصیات، اور ان کی خریداری

ج۔ غذائیت:

غذائیت، افراد اور کمیونٹی پر اس کے اثرات

غذائی ضروریات متعین کرنے والے عوامل، مختلف غذائی ضروریات

مختلف غذاؤں کی پہچان اور ان کا انتخاب

فہرست طعام بندی: خوراک کی ذخیرہ اندوزی، پکانے کے عمومی طریقے۔

حصہ دوم

ا۔ i) آرٹ ii) رنگ iii) ڈیزائن، ڈیزائن کے اصول

iv) باندھنا اور رنگنا، رنگ بنانا اور رنگنا، ساز و سامان، ڈیزائن بنانے اور باندھنے کا طریقہ

نصاب ہوم اکنامکس (سال چہارم)

BA (Part-II)

ا۔ شخصیت کی نشوونما:

(i) شخصیت کی نشوونما کے مراحل ii) صحت مند شخصیت اور ذات

iii) تعلیم کی اہمیت اور اس کا اثر iv) شخصیت کی اقسام اور انفرادیت

ب۔ کپڑوں کی حفاظت اور دیکھ بھال:

(i) موسمی حفاظت ii) کپڑوں کے داغ دھبے دور کرنے کی اقسام

یہ Topic درج ذیل کتاب سے لینے ہیں:

تعارف ہوم اکنامکس (حصہ اول)

مسز نگہت نفیس مسز اصغری مشتاق

مسز فرح طلعت روبینہ ناز

اعتصام پبلشرز، اردو بازار لاہور۔

iii) آرٹ اور ڈیزائن:

i) روزمرہ زندگی میں آرٹ کا اطلاق ii) ڈیزائن کے بنیادی عناصر iii) لیبل اور پیکنگ کے ڈیزائن

iv) گھریلو نظم ونسق اور ماحول:

i) گھریلو امور کا نظم ونسق ii) ماحولیاتی دیکھ بھال iii) تعلیم صارفین

یہ Topic درج ذیل کتاب سے کرنے ہیں:

مس متیہ ضیاء کاروان بک ہاؤس، کچہری روڈ لاہور۔

Marks Divison:

Objective / Short Question: 20

Subjective: 50

Practical: 30

Preparation and Preservation of Jam, Squashes, Pickles, Chutneys,

Fancy Dishes (Soups, Salads, Desserts, Snaks, Main Dishes) = 15

File Work = 05

داغ دھبے دور کرنا، اقسام اور طریقے

Flower Arrangements (Dry + Fresh) = 5 + 5 = 10

آئندہ یہ بھی ''مبادیات ہوم اکنامکس'' سے لیا جائے گا۔