

ASSOCIATE DEGREE IN ARTS / SCIENCE

اسلامیات لازمی

نصابی خاکہ

- ۱۔ قرآن مجید ۲۰ نمبر
 - ۲۔ حدیث شریف ۱۰ نمبر
 - ۳۔ سیرت النبی ﷺ ۱۰ نمبر
 - ۴۔ اسلامی تہذیب و تمدن ۱۰ نمبر
 - ۵۔ معروضی سوالات ۱۰ نمبر
- (معروضی سوالات پورے نصاب پر مشتمل ہوں گے)

نصابی تفصیلات

۱۔ قرآن مجید

مطالعہ قرآن مجید کی ضرورت و اہمیت

قرآن کریم سے متعلق موضوعات کے بارے میں آیت دی جائے گی اور آیت کی تشریح کی جائے گی۔
(الف) ایمانیات (عقلی و نقلی دلائل کا مطالعہ)

توحید، رسالت، ملائکہ، کتب، آخرت کے اثبات پر دلائل، ختم نبوت۔ ناموس رسالت

(ب) عبادات

نماز، زکوٰۃ، روزہ، حج، جہاد

(ج) تفکر و تدبیر۔ اسلام کا تصور علم اور تصور اجتہاد

(د) خدمتِ خلق

(ه) مومن کی صفات

(و) دعوتِ دین کی ضرورت و اہمیت، نوعیت، امر بالمعروف و نہی عن المنکر

(ز) کسبِ حلال

قرآن مجید کی مندرجہ ذیل آیات کا ترجمہ و تشریح

(i) البقرة / (آیات نمبر ۲۸۳ تا ۲۸۶) (لله ما فی السموت و ما فی الارض علی القوم الکفرین) ایمانیات

(ii) الحجرات: (آیات نمبر ۱۸ تا ۱۸) موضوع ادب نبوی ﷺ، معاشرتی احکام

(iii) المؤمنون / ۲۳: (آیات ۱ تا ۱۱) صفات مومنین

(iv) الفرقان / ۲۵: (آیات نمبر ۶۳ تا ۷۷) موضوع آداب معاشرت

(v) //

(vi) الاحزاب/۳۳ (آیات ۶، ۲۱، ۲۰، ۵۷، ۵۸) تحفہات نبوی ﷺ

(vii) الحشر/۵۹ (آیات ۱۹، ۲۰) فکر آخرت، عظمت قرآن

(viii) الصنف/۶۱ (آیات ۱-۲) تفکر و تدبر سے متعلق آیات۔ بشارت بعثت ختم المرسلین۔ دعوت اور اقامت دین

(ix) آل عمران/۳ (آیات ۱۹۰، ۱۹۱)

(ان فی خلق اسموت والارض واختلاف الیل والنهار لایت لاولی الاباب الذین یدکرون اللہ)

۲۔ احادیث شریف

مندرجہ ذیل احادیث کا ترجمہ و تشریح:

۱۔ عن عبد اللہ قال: قال رسول اللہ ﷺ طلب کسب الحلال فریضۃ (یعنی شعب الایمان)

۲۔ عن ابی سعید قال: قال رسول اللہ ﷺ التاجر الصدوق الایمن مع والصدیقین والشهداء (جامع ترمذی سنن دارمی دارالقطنی)

۳۔ عن ابن مسعود عن النبی ﷺ قال لا تزول قدمی الا من آدحتہ من تحتہ عن عمرہ فیما انفاد عن شبابہ فیما ابلاہ عن مالہ ان اکسبه و فیما انفقہ وما ذاعل فیما علم (جامع ترمذی)

۴۔ عن علی قال: قال رسول اللہ ﷺ من ملک ذاد اور ارحلہ تہلجہ الی بیت اللہ ولم یحج فلا علیہ ان یموت یحویاً او نصرانیاً و ذلک ان اللہ تبارک وتعالی یقول وللہ علی

الناس حج البیت من استطاع الیہ سبیلاً (جامع ترمذی)

۵۔ عن ابی ہریرۃ رضی اللہ عنہ ان رسول اللہ ﷺ قال: اتدرون ما الحفلس؟ قالوا الحفلس فینا من لا درہم لا ولا متاع، فقال: ان الحفلس من امتی من یاتی یوم القیمۃ

بصلوۃ وصیام و زکوۃ، ویاتی قد شتم ہذا، وقد ف ہذا، واکل مال ہذا، سقک دم ہذا، وضرب ہذا فیعطی ہذا من حسابہ، و ہذا من حسابہ، فان فقیہ حسانہ، قبل ای یقضی ما علیہ

اخذ من خطایہم فطرحت علیہم طرح فی النار

۶۔ عن شبرمۃ بن معبد قال: قال رسول اللہ ﷺ مروا الصیام الصلوۃ از ابلغ سبع سنین واذ ابلغ عشر سنین فاضر بوبہ علیہا۔ اخرجہ ابوداؤد الترمذی ولقظہ علموا الصمی

الصلوۃ، ابن سبع سنین واضر بوبہ علیہا ابن عشر (صحیح بخاری)

۷۔ قال رسول اللہ ﷺ تجرد وشر الناس یوم القیامتہ ذالھین الذی یاتی ہولاء بوجہ وھولاء بوجہ (متفق علیہ)

۸۔ قال رسول اللہ ﷺ انث اقل شیء یوضع فی میزان المؤمن یوم القیامتہ خلق حسن، وان اللغۃ ینقض الفاحش البدی (ترمذی ابوالدرداء)

۹۔ عن عمر بن الخطاب قال: قال رسول اللہ ﷺ صین سئل عن الایمان ان تو من باللہ و ملائکتہ و کتبہ و رسولہ و الیوم الآخر تو من بالقدیر خیرہ و شرہ (متفق علیہ)

۱۰۔ عن العباس بن عبد المطلب قال: رسول اللہ ﷺ ذاق طعم الایمان من رضی باللہ رباً، وبالاسلام دیناً و بحمد رسولاً۔ (مسلم)

۱۱۔ عن انس قال: قال رسول اللہ ﷺ والذی نفسی بیدہ لا یومن عبد حتی یحب لاجلہ ما یحب لنفسہ (متفق علیہ)

۱۲۔ عن الصمان بن بشر قال: قال رسول اللہ ﷺ تری المؤمنین فری ترجم و تو ادم و تعافھم کمثل الجسد اذا شکى۔ عضوہ تداعی لہ ساتر الجسد بالسحر والحی (متفق علیہ)

۱۳۔ عن ابن عمر رضی اللہ عنہما قال: قال رسول اللہ ﷺ بنی الاسلام علی خمس شھادۃ ان لا الہ الا اللہ وان محمداً عبده ورسوله و اقام اصلوۃ و اتیاء الزکوۃ و ارجح وصوم

رمضان (متفق علیہ)

۱۴۔ عن ابی سعید الخدری عن رسول اللہ ﷺ من رای منکم منکر افلیغیرہ بیدہ فان لم یستطع فبلسانہ، ان لم یستطع فبقلبہ و ذلک اضعف الایمان (رواہ مسلم)

۱۵۔ عن عبد اللہ بن عمر قال: قال رسول اللہ ﷺ الاکرم راع و کلکم مسئول عن رعیتہ فالام الذی علی الناس راع و هو مسئول عن رعیتہ والرجل داع علی اہل بیت و هو

مسئول عن رعیتہ والمرأۃ راعیۃ علی بیت زوجها و ولدہ و حی مسئولۃ عنھم و عبد الرجل راع عن مال سیدہ و هو مسئول عنہ الا فکلکم راع و کلکم مسئول عن رعیتہ (متفق علیہ)

۳۔ سیرت النبی ﷺ

(i) مطالعہ سیرت النبی ﷺ کی ضرورت اہمیت

- (ii) تزکیہ نفس اور تعمیر سیرت و شخصیت کا نبوی منہاج
- (iii) اخلاقی تعلیمات
- (iv) اقامت دین کا نبوی طریق
- (v) اقامت دین، خلفائے راشدین کا منہاج
- (vi) اجتماعیت و تشکیل معاشرت اور اسوۂ حسنہ، اخوت و اتحاد امت
- (vii) قرآن مجید میں سیرت سرور عالم ﷺ کا بیان
- (viii) غزوات نبوی۔ مقاصد و حکمت
- ۴۔ اسلامی تہذیب و تمدن
- تہذیب کی تعریف
- اسلامی تہذیب کی خصوصیات
- اسلامی تہذیب کی بنیادی اور عناصر ترکیبی
- اسلامی تہذیب کے فکری اثرات
- اسلامی تہذیب کے علمی اثرات
- اسلامی تہذیب کے معاشرتی و سماجی اثرات
- عصری تہذیبی کشمکش اور اسلام
- ۴۔ معروضی سوالات سارے سلیپس سے لئے جائیں گے

Ethics

(For Non-Muslims)

(Marks 60)

1. Definition and scope of ethics: relation of ethics to psychology, metaphysics in religion.
2. A brief review of the major theories of the moral standards.
 - (a) The standard as Law.
 - (b) The standard as Happiness.
 - (c) The standard as Perfection.
3. Promotion of Moral values in society through family and various educational and cultural Institutions; Concept of good and evil: Freedom and responsibility; various theories of punishment.
4. Ethical techniques of world religions with special reference to Hinduism, Christianity, Budhims, Judaism and Islam.
- 100 Ethical precepts from the Quran and sayings of the Holy Porphet (PBUH) - Appendix - II.
6. Islam's attitude towards minorities.

Books Recommended:

Relevant portions of the following books:

1. J.S. Mackenzie: A Manual of Ethics.
2. Harol H. Titus: Ethics for To-day.
3. B.A. Dar: Quranic Ethics.
4. Proceedings of to Islamic Colloquium, Lahore 1957.

5- مطبوعہ اسلامک سٹڈی سوسائٹی، لاہور، اسلامی ریاست: سیرا الہی مودودی۔

Note: The Details are available in Appendix - II.

Appendix 'II'

القرآن

۹/۳! و اقصیٰ فی مشیک و اغضض من صوتک۔ ان انکر الاصوات لصوت الحمیر۔
شیرین زبانی ۸۳۲ قولو اللناس حسنا۔
والدین کا احسان ۲۳! و بالوالدین احسانا۔ اما یبلغن عندک الکبر احدهما او کلاهما فلاتقل لهما اف ولا تنهرهما۔
تکبر ۲۴/۳۰ قال موسیٰ انی عزت ربی و ربکم من کل متکبر لایومن بیوم الحساب۔
غصه اور معافی ۳۳! و الکظمین الغیظ والعافین عن الناس۔
عفو ۹۹/۴! خذ العفو و امر بالعرف و اعرض عن الجاهلین۔
۳!/۲ و لمن صبر و غفر ان ذالک لمن عزم الامور۔
ایثار ۹/۰۹! و یوثرون علی انفسهم و لو کان بهم حصاصه و من یوق شح نفسه فارلک هم المفلحون
جمع مال ۱۰۳!/ و یل لكل همزة لمزة ن الذی جمع مالا وعدده یحسب ان ماله اخلده۔
بخل ۳۴/۲ الذین یبخلون و یامرون الناس بالبخل و یکتُمون ما آتاهم الله من فضله و اعتدنا للکفرین عذابا مهینا۔
اسراف ۳۴/۴ الذین یبخلون و یامرون الناس بالبخل و یکتُمون ما آتاهم الله من فضله و اعتدنا للکفرین عذابا مهینا۔
اسراف ۳۴/۲ انه لا یحب المسرفین
فضول خرچی ۲۴/۱۴ ان لمبذرین کانوا اخوان الشیطین۔
حسد ۱۰/۱۳! و من شر حاسد اذا حسد۔
قسم ۹!/۱! و اوفوا بعهد الله اذا عاهدتم ولا تنقضوا الیمان بعد توکیدها۔
جهوٹی قسم ۱۰/۲۲! ولا تطع کل حلاف مهین۔
احسان ۱۰/۲! و احسنوا ان الله یحب المحسنین۔
- ۲۰! هل جزاء الاحسان الا الاحسان
اولاد ۳!/۱! ولا تقتلوا ولا ذم خشية املاق نحن نرزقهم و ایاکم ان قتلکم کان خطا کبیرا۔
اقارب ۳!/۱! ان الله یامر بالعدل و الاحسان و ایتای ذی القربی و ینهی عن الفحشاء و المنکر و البغی یعظکم لعلکم تذکرون۔
یتیم ۳۳۰/۲ و یسنلونک عن الیتیمی قل اصلاح لهم خیر۔
۳۶/۳ و اعبدا الله ولا تشرکوا به شیاء و بالوالدین احسانا و بذی القربی و الیتیمی و المساکین و الجار ذی القربی و الجار الجنب و الصاحب بالجنب و ابن السبیل۔
محروم معیت ۹!/۱۰! و فی اموالهم حق للسائل و المحروم۔
اصلاح ۸۸/۱! ان ارید الاصلاح ما استطعت و ما ترفیقی الا بالله علیه توکلت۔
ادب مجلس ۸۰!! یا ایها الذین آمنوا اذا قیل لکم تفسحوا فی المجالس فافسحوا ینسج الله لکم و اذا قیل انشزوا فانشزوا۔
سرگوشی ۱۱۳/۳! لاخیر فی کثیر من نجوهم الامن امر بصدقة او معروف او اصلاح بین الناس۔
بدگمانی ۱۲/۳۹! یا ایها الذین آمنوا اجتنبوا کثیرا من الظن ان بعض الظن اثم۔

الله كي نعمت سر نا اميدى ٠٣/٢٩ قل عبادى الذين اسرفوا على انقسم لا تقنظوا من رحمة الله ان الله يغفر الذنوب جميعا.

٣٩/٠٣ ليس للانسان الا ماسعى

رياضت و عبادت ٢٩/٢٩.والذين جاهدوا فينا لنهدينهم سبلنا.

علم ٣/٣٠!! رب زدنى علما.

جبر ٢٠١/٢ لا اكراه فى الدين

عمل ٨٣/٤! قل كل يعمل على شا كلته فربكم اعلم بمن هوا هدى سبيلا.

صبر!! ٥/!! واصبر فان الله لا يضيع اجر المحسنين

شكر ٣/٣٣! اعملوا آل داود شكرا وقليل من عبادى الشكور.

اخلاص ٣/٢٩ الا لله الدين الخالص.

اطمئنان قلب ٢٨/١٣ الا يذكر الله تظمنن القلوب.

مصدق ٩/٩!! كونوا مع الصادقين.

عهد ٣/٤! افوا بالعهد ان العهد كان مستولا.

جھوت ٣٠/٢٢ فاجتنبوا الرجس من الاوثان واجتنبوا قول الزور

بآل ٣٣/٢ اقامرون الناس بالبر و تسمون انفسكم و انتم تلون الكتاب

٨٣/١٤ واذا اتعنا على الانسان اعرض و نا بجانبه و اذا مسه الشر كان يؤسا

ريا ٣٦/٣ ان الله لا يحب من كان مختالا فخورا

الشرا لم يظلم ان الله لا يظلم الناس شيا ولكن الناس انفسهم يظلمون

عدل ١٣٥/٦ كونوا قوامين بالقسط

١٥٣/٦ او قوا الكيل والميزان بالقسط لا تكلف نفسا الا وسعها واذا قلتم فاعدلوا

سقاى ٨٥/٣ ومن يشفع شفاعة حسنة يكن له نصيب منها ومن يشفع شفاعة سنية يكن له كفل منها

رغرت ١٨٨/٣ ولا تاكلوا اموالكم بينكم با لباطل وتدلوا بها الى الحكام لتاكلوا فريقا من اموال الناس بالاثم

تواضع ٨٨/١٥ وانخفض جناحك للمؤمنين

١٨/٣١ ولا تصعر خدك للناس ولا تمش فى الارض مرحا

٣٦٣٦ ان اعلى الناس بالله من بدأ بالسلام

٣٦٤٦ لا تأذنوا لمن لم يبدأ بالسلام

٣٦٤٨ من لا يرحم لا يرحم

٣٦٩٣ تصافحوا يذهب الغل تهادوا و تحابوا وتذهب الشحنا

٣٤٢٣ لا يسب احدكم الدهر فان الله هو الدهر

٣٨١٩ لا ينغى تصديق ان يكون لعانا

٣٨٢٣ لا يدخل الجنة قتات

٣٦٣٦ من صمت نجا

٣٨٦٦ اياك و كثرت الضحك فانه يميت القلب

٣٨٩٨ ان الله اوحى الى ان تواضعوا حتى لا يفخر احد على الا يبغي احد على احد

٣٩٠٨ حيك الشى يعمى و يصم

٣٩١٤ ان من ابر البر صلة الرجل اهل و دابيه بعد ان يولى

٣٩١٨ من احب ان يبسط له فى رزقه و ينسا له فى اثره فليصل رحمه

٣٩٢٢ لا يدخل الجنة قاطع

٣٩٣٦ حق كبير الاخوة على صغيرهم حق الوالد على ولده

٣٣٦١ لا يؤمن عبد حتى يحب لاخيه ما يحب لنفسه

٣٩٦٣ لا يدخل الجنة من لا يأمن جاره بوائقه

٣٩٦٩ الراحمون يرحمهم الرحمن

ارحمو من فى الارض يرحمكم من فى السماء

٣٩٤٠ ليس منا من لم يرحم صغيرنا ولم يؤقر كبيرنا

من أحسن الي' يتيمة اوتيم عنده كنت انا وهو فى الجنة كهاتين وقرن بين أصابعه	٣٩٤٣
ما نحل والد ولده من نحل افضل من ادب حسن	٣٩٤٤
ليس المؤمن بالذى يشيع وجاره جائع الى جنبه	٣٩٩١
لا يؤمن حتى جاره يوائقه	٣٩٩٣
الخلق عيال الله فاحب الخلق الى الله من احسن الى عياله	٣٩٩٨
المرء مع من أحبه	٥٠٠٨
اذا أحب الرجل أخاه فليخبره أنه يحبه	٥٠١٢
اياكم والظن فان الظن اكذب الحديث	٥٠٢٨
من هجر اخاه سنة فهو كسفك دمه	٥٠٣٦
الا اخبركم با فضل من درجة الصيام والصدقة والصلوة قال قلنا بلى قال :اصلاح ذات البين	٥٠٣٨
اياكم والحسد فان لحسد يا كل الحسنات كما تاكل النار الحطب	٥٠٣٠
من ضار ضار الله به ومن شاق شاق الله عليه	٥٠٣٢
حسن الظن من حسن العباده	٥٠٣٨
كاد الفقير ان يكون كقرا	٥٠٥١
لا يلدغ المؤمن من جحر واحد مرتين	٥٠٥٣
لا حلیم الا ذو عثرة ولا حكيم الا ذو تجربة	٥٠٥٦
ان المستشار مؤتمن	٥٠٦٢
المجالس با الامانة	٥٠٦٣
من يحرم الرفق يحرم الخير	٥٠٦٩
الحياء لا يأتى الا بخير	٥٠٤١
الحياء خير كله	'
البر حسن الخلق والائتم ما حاك فى صدرك وكرهت ان يطلع عليه الناس	٥٠٤٣
ان من خياركم احسنكم اخلاقا	٥٠٤٥
ان لكل دين خلقا وخلق الاسلام الحياء	٥٠٩٠
ليس الشديد با لصرعة انما الشديد الذى يملك نفسه عند الغضب	٥١٠٥
الظلم ظلمات يوم القيامة	٥١٢٣
اياك و دعوة المظلوم	٥١٣٣
ليس الغنى عن كثرة العرض ولكن الغنى غنى النفس	٥١٤٠
ازهد فى الدنيا يحبك الله وازهد فيما عند الناس يحبك الناس	٥١٨٤

ASSOCIATE DEGREE IN ARTS / SCIENCE
Course Outline for Pakistan Studies

Marks: 40

Objectives: The objectives of this course are to acquaint the students with:

1. Two Nation Theory and Ideology of Pakistan

- a. Historical background of creation of Pakistan
- b. Two Nation Theory in its historical context, definition and interpretations
- c. Quaid-i-Azam and his political ideas.

2. Political Dynamics of Pakistan

- a. Constitutional development in Pakistan. (1947-73)
- b. Salient features of constitution of Pakistan 1973.
- c. Institutions of Pakistan: political parties, bureaucracy, army, judiciary and media.
- d. Problems of Pakistan as a Federal State.

3. Socio-Economic Issues of Pakistan.

- a. Economical Problem.
- b. Social and demographic issues.

4. Diplomatic Dynamics of Pakistan.

- a. Determinants and objectives of Pakistan's foreign policy.
- b. Pakistan's relations with its neighboring countries.
- c. Pakistan and the Muslim World (A comprehensive review of foreign policy of Pakistan)

Recommended Books:

1. Javed Ahmad Sheikh, Pakistan's Political, Economic and Diplomatic Dynamics, Lahore: Kitabistan Paper Products.
2. Other relevant readings for the individual subjects shall be recommended by the teacher during the course.

Associate Degree in Arts

English Language-I

Total Mark: 100

Appendix 'A'

(Outlines of Tests)

Section-I

- | | |
|--|-----------|
| Q. 1. Reference to the context from Poetry and Short Stories. (Three out of Five) | 20 |
| Q. 2. Short stories and One Act Plays. | 20 |
| Q. 3. Question from ' A Selection of Modern English Verse. | 20 |

Section-II

- | | |
|--|-----------|
| Q. 4. Precis and Comprehension Writing. | 25 |
| Q. 5. Translation From Urdu to English | |

OR

Dialogue Writing

15

100

Appendix 'B'

(Outlines of Tests)

Recommended Books:

1. A New Anthology of English Poetry: edited by Prof. Shoaib bin Hassan and Prof. K. Aslam, published by Maktaba-e-Karvan, Katchcry Road, Lahore.
2. A Selection of short stories and One Act Plays edited edited by Dr. Nasim Riaz Butt, published by Maktaba-e-Karvan, Katchcry Road, Lahore
3. Skill Worker (Caravan) by Dr. Surriya Shafi, Prof. Sabiha Mansoor & Prof. Humaira Irfan.

ASSOCIATE DEGREE IN ARTS

Arabic Elective

Syllabi Paper I

العربية الاختيارية

(مجموع العلامات: ١٠٠! علامة)

Appendix 'A'

(Outlines of Tests)

Paper 'I'

اللغة العربية

100 Marks

Appendix 'B'

Syllabi & Courses of Reading

Paper 'I'

كتاب اللغة العربية

فهرست عنوانات

القسم الاول: الحوار

- ١! تعارف ٢! في الفندق ٣! في مطعم القنديل ٣! في المطار
- ٥! في البنك (المصرف) ٢! في مكتب البريد
- ٤! في مكتب الهاتف و البرق ٨! في قسم الشرطة
- ٩! عند البقال ١٠! عند الطبيب العام !! البحث عن الشقة
- ١٠! زينب في السوق (عند الخضري) ٣! الفصول الاربعة
- ٣! الطقس ٥! في محطة القطارات ٢! في العطلة

الرسائل:

- ١! من الطالب الى مدير المكتبة
- ٢! الرسالة من ولد الى والده
- ٣! رد الرسالة من الوالد الى ولده
- ٣! الرسالة من تلميذ الى استاذة لطلب الاجازة
- ٥! من الصديق الى صديقة
- ٦! من الطالب الى مدير المعهد

الطلبات:

- ١! طلب الاجازة
- ٢! طلب الاعفاء عن الرسوم
- ٣! طلب الاجازة لحفلة الزواج
- ٣! طلب الاجازة بسبب المرض
- ٥! طلب الوظيفة

القسم الثالث:

الترجمة من الانجليزية/الاردية الى العربية

Recommended Books:

- ١! اللغة العربية: ترتيب الدكتور سليم طارق خان مطبوعه ازاد بك ديو لاهور
- ٢! اللغة العربية: تقديم ذاكثر محمد اعزاز الحسن شاه مطبوعه ازاد بك ديو لاهور
- ٣! اللغة العربية/لجنة اساتذه جامعه بنجاب مقرر بكالوريوس لجامعة بنجاب لاهور

ASSOCIATE DEGREE IN SCIENCE

Botany-I

Total Mark: 100

Appendix 'A'

(Outlines of Tests)

Paper-A:	Diversity of Plants (Written)	:	35 Marks
Paper-B:	Plant Systematics Anatomy and Development (Written):		35 Marks
Paper-C:	(Practical-I)	:	15 Marks
Paper-D:	(Practical-II)	:	15 Marks

Note:

- (a) The 70% portion of question paper will be subjective type and 30% objective type, the question paper will be section wise and each question will be divided in parts.
- (b) The choice in attempting the question will be minimized to some extent.

Appendix 'B'

(Syllabi and Courses of Reading)

Paper-A: Diversity of Plants 35 Marks

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 (such as Nitrogen cycle and industrial role)

3. Kingdom Protista/Protoetsta: (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) Phacophyta: Laminaria
 - (vi) Rhodophyta.-Batrachospermum / Polysiphonia

4. Kingdom Fungi:

- (a) General structure, life cycle, classification with specific examples:
 - (i) Plasmodiophoromycota Plasmodiophora

- | | | |
|-------|---------------|--|
| (ii) | Oomycota | Pythium |
| (iii) | Ascomycota | Penicillium. Saccharomyces. Alternaria |
| (iv) | Basidiomycota | 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) Lycopside: *Setaginella*
- (iii) Sphenopsida: *Equisetum*
- (iv) Pteropsida ; *Poly podium*, *Adiantum* and *Marsilea*

- (c) Gymnospermae (seed Plants)

General account with reference to structure and life history of *Cycas*, *Pinus* and *Ephedra* and their affinities.

- (d) Angiospermae

- (e) Introduction and distinguishing features.

Paper-B: Plant Systematics, Anatomy and Development

35 Marks

Plant Systematic:

1. Introduction to Plant systematics its aims objectives and importance.
2. Classification : Importance, brief history, introduction, various systems of classification (Brief account of all the systems)
3. Brief introduction to nomenclature, importance of Latin names and binomial system with an introduction to international code of Botanical Nomenclature (ICBN).
4. Morphology and Phytography a detailed account of various morphological characters of Root, stem, 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. Rataceae
7. Moraceae
8. Chenopodiaceae
9. Cucurbitaceae
10. Solanaceae
11. Lamiaceae (Labiatae)
12. Asteraceae (Compositae)
13. Liliaceae
14. Poceac (Gramineae)

Anatomy and Development:

1. Cell wall; structure and chemical composition.
2. Tissue and Tissu System: Concept; structure and function of various tissues.
3. Structure and development of root, stem and leaf including various type of meristem. Primary and secondary growth of dicot stem.
4. Early development of Plant body (embryology) *Capsella bursa-pastoris* or *Arubidopsis*.

Paper-C: Practical-I

15 Marks

General culturing, maintenance. Preservation and staining of micro-organisms. 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.

Paper-D: Practical-II

15 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.

Recommended Books:

1. Bold. H.C.. Morphology of Plants. 2nd ed. Harper & Row, N Y.
2. Dickison, W.C. (2000). Integrative Plant Anatomy. Academic Press. UK.
3. Esau, K. (1960) Anatomy of seed plants, John Wiley, New York
4. Hafiz, A. (1986). Plant Diseases. Pakistan Agricultural Research Council. Islamabad, Pakistan.
5. Lee, R.E. (1999). Phycology. Cambridge University Press. U.K.
6. Mauseth, J.D. ((1998). An Introduction to Plant Biology : Multimedia Enhanced. Jones and Bartlett Pub U.K.
7. Moore. R.C.. W.D. and Vodopich, D.S. (1998). Botany. McGraw Hill Company. U.S.A.
8. Pahn, A. (1990) Plant Anatomy. Pergamon Press, U.K.
9. Pandey. S.N. (1994). Text Book of Botany Vol. II. S. Chand & Co. New Dehli.
10. Raven, P.X, Evert, R. E. and Eichorn, S. E. (1999). Biology of Plants. W. H. Freeman and Company Worth Publishers.
11. Ross, F.C. (1991). Introduction to Microbiology. John Wiley, U.S.A.
12. Ray. P. M. Sleeves, T. A. and Fultz. T. A. (1998). Botany. Saunders College Publishing. U.S.A.
13. Stuessy, T.F. (1990). Plant Taxonomy. Columbia University Press, USA.
14. Stuessy, T.F. (1990). Plant Taxonomy. Columbia University Press, USA.
15. Sharma. O.P. (1992). Text book of Thallophytes. Tata McGraw hill Education, Publishing Company, New Delhi.
16. Subramaniam, N. S. (1997) Modern Plant Taxonomy, Vikas Publishing House Pvt. Ltd.

ASSOCIATE DEGREE IN SCIENCE
Chemistry- I

(Outlines of Tests)	
Paper-A: Physical Chemistry (Written) :	40 Marks
Paper-B: Inorganic Chemistry (Written) :	40 Marks
Paper-C: Physical Chemistry & Inorganic Chemistry (Practical-I)	10+10=20 Marks

(Syllabi and Courses of Reading)

Paper A: Physical Chemistry

Marks: 40

It is compulsory to attempt at least TWO questions from each section.

Section -I

1. Elementary Mathematics:

Weightage of marks

4

Logarithmic, exponential and trigonometric functions, differentiation of elementary functions, methods of differentiation & integration, significance of differentiation & integration.

2. Physical States of Matter:

Weightage of marks

6

Gases: (van der Waal's equation, critical phenomena, critical values of T, P & V, liquification of gases, molecular collisions, collision diameter, mean free path); **Liquids:** (viscosity, parachor value, refractive index, molar refraction and its applications. Dipole moment; **Solids:** unit cells, Bragg crystal analysis, crystal structure of NaCl, powder method of crystal structure analysis.

3. Atomic Structure

Weightage of marks

4

de Broglie equation, Schrödinger wave equation and its solution for particle in 1D box, quantization concept, Heisenberg uncertainty principle, Pauli's exclusion principle, Hund's rule.

4. Chemical Thermodynamics

Weightage of marks

4

First law of thermodynamics, state functions, isothermal and adiabatic processes in ideal gases, heat capacity, reversible and irreversible processes. Spontaneous and non-spontaneous processes, second law of thermodynamics, change of entropy with change in T, P & V.

Section- II**5. Chemical Equilibrium:**

Weightage of marks 4

Law of mass action, equilibrium constant (K_c), relationship between K_c , K_p , K_x and K_a , Le Chaterlier's principle.

6. Solutions:

Weightage of marks 4

Composition, ideal and non-ideal solutions. Raoult's law, colligative properties, ebullioscopy, cryoscopy, osmotic pressure, distillation and concept of azeotropes.

7. Chemical Kinetics

Weightage of marks 5

Zero, first and second order reactions, Arrhenius equation, activation energy, Lindermann's mechanism, collision theory and transition state theory.

8. Electrochemistry

Weightage of marks 4

Conductance, dependence of conductance on the nature of solvent and temperature, Kohlrausch's law and its applications, measurement of conductance, strong and weak electrolytes, degree of dissociation.

9. Surface Phenomena and Colloids

Weightage of marks 5

Physisorption and chemisorption, isotherms; types, properties, preparation and applications of colloids.

Recommended Books

1. Maron S. H. and Jerome, B. "Fundamentals of Physical Chemistry" Macruthan Publishing co. Inc. New York (2016).
2. Atkins P.W. and Clugston, M. J. "Principles of Physical Chemistry' Pitam Publishing Company. NY (2015).
3. Moore, W.J., "Physical Chemistry", 5th Ed. Longmans Publishers, NY (1972).
4. Jones, M., "Elements of Physical Chemistry" 3rd Ed. Benjamin Cummings Publishing Company Inc., NY (2014).
5. Adamson, A. W., "Understanding Physical Chemistry" 3rd Ed. Benjamin Cummings Publishing Company Inc. NY (2015).
6. Heald, C. and Smith, A.C.K. "Applied Physical Chemistry" MacMillan UK (1973).
7. Bhatti, H.N. and K. Hussain, "Principles of Physical Chemistry"; Carvan Book House, Lahore (2005).
8. Levitt, B.P., "Findlay's Practical Physical Chemistry". 9th Ed. Longman, London (1973).
9. Das, R.C. and B. Behera, "Experimental Physical Chemistry", Tata McGraw Hill, Delhi (2003).

10. Crocleford, H.D., H.W. Biard, F.W. Getzen & J.W. Nowell, "Laboratory Manual of Physical Chemistry", 2nd Ed., John Wiley & Sons, London (1975).

Paper-B: Inorganic Chemistry

Marks: 40

It is compulsory to attempt at least TWO questions from each section.

Section-I

1. Periodic Table and Periodicity of Properties

Weightage of marks

3

Modern periodic table, group trends and periodic properties, atomic & ionic radii, ionization potentials, electron affinities and electronegativities; redox potential, electrochemical series and its applications; corrosion and electroplating.

2. Acid Base Equilibria

Weightage of marks

4

Acids and bases, relative strengths of acids, pH, pK_a , pK_b , Soft and hard acid-base (SHAB) concept: principle & applications. Buffers: types, preparation, capacity and applications. Indicators: acid-base, redox and adsorption. Solubility product, common ion effect and applications.

3. Physical Techniques in Inorganic Chemistry

Weightage of marks

4

Diffraction methods (X-ray and Neutron diffractions)
Chemical analysis (Atomic absorption spectroscopy, X-ray fluorescence, elemental analysis and thermal analysis).

4. Chemical Bonding

Weightage of marks

6

Nature of a bond, hybridization, valence bond theory (VBT), the concept of resonance, molecular orbital theory (MOT), valence shell electron pair repulsion (VSEPR) theory. Special types of bonds, such as, metallic bonds, hydrogen bonding, bent bond, ion-dipole-dipole bond, ion induced-dipole bond.

5. Alkali & Alkaline Earth Metals

Weightage of marks

3

General characteristics and important compounds of elements of group IA & group IIA. Diagonal relationships between these elements.

Section-II

6. Chemistry of p-Block Elements

Weightage of marks

12

Introduction to p-block elements

Group IIIA Elements: Group trends (physical properties, atomic sizes & chemical reactivity), comparison of boron with silicon, compounds of boron: boranes.

Group IVA Elements: Group trends (physical properties, atomic sizes & chemical reactivity), allotropic forms of C: graphite, diamond and fullerene (synthesis, properties & structure), carbides (classification, preparation, properties and uses). Compounds of Ge, Sn and Pb. Silicates (structural aspects, classification and applications), silicones

(structural aspects, classification and applications); production of pure Si chips for solar energy cells, silicides.

Group VA Elements: Group trends (physical properties, atomic sizes & chemical reactivity); nitrides, phosphides, arsenides, antimonides and bismuthides, nitrogen cycle, phosphazenes, oxoacids of N and P.

Group VIA Elements: Group trends (physical & chemical properties), oxoacids and their salts thionic acids, peroxyacids of S. Oxoacids of Se and Te.

Group VIIA Elements (Halogens): Group trends, physical and chemical properties, haloacids.

Group VIIIA Elements (Noble gases): Discovery, separation and isolation, general chemistry of inert gases, xenon fluorides.

7. Chemistry of d-Block Elements

Weightage of marks

8

Electronic configuration, nomenclature, characteristics and nature of bonding in coordination complexes. Werner's theory, VBT, MOT and CFT for coordination compounds. Isomerism in coordination compounds. Chelates: classification and applications. Medicinal, industrial and agricultural applications of coordination compounds.

Recommended Books (Inorganic Chemistry)

1. Iqbal, M.Z., "Text Book of Inorganic Chemistry" Ilmi Kitab Khana, Revised Edition (2008).
2. Shaheen, M.A, Hazoor Ahmad, Jilani's "Concise Inorganic Chemistry" Jilani Notes, Sargodha, Lahore (2018)
3. Albert, C.F., Wilkinson G, and Gaus, P.L. "Basic Inorganic Chemistry" 3rd Edition, John Wiley & Sons, Inc. NY (2010).
4. Lee, J.D., "Concise Inorganic Chemistry" 5th Edition, Chapman & Hall, UK (2014).
5. Jolly, W.L., "Modern Inorganic Chemistry" 2nd Edition McGraw Hill, NY (2015).
6. Shriver, D.F., Atkins P.W. and Langord, C.H. "Inorganic Chemistry" 2nd Edition, Oxford Press, UK (2016).
7. Housecroft, C.E. and Sharpe, A.G., "Inorganic Chemistry" 3rd Edition, Longman, NY (2015).
8. Rayner-Canham, G. "Descriptive Inorganic Chemistry" W.H. Freeman & Co. UK (2014).
9. Jeffery, G.H., Bassett, J., Mendham, J. and Denney, R.C. "Vogel's Textbooks of Quantitative Chemical Analysis" 5th Edition, Benjamin-Cummings, NY (1989).
10. Vogel, A.I, "A Text Book of Macro and Semimicro Qualitative Inorganic Analysis" Longman Green & Co. NY (1995).
11. Skoog, D.A., West, D. M. and Holler, F.J. "Analytical Chemistry" 6th Edition Saunders College Publications, UK (1994).

12. Graham, H and Man, H. "Chemistry in Context" 5th Edition, Thomas Nelson Ltd. U.K. (2000).

Paper-C: Physical Chemistry & Inorganic Chemistry (Practical-I)

20 Marks

Physical Chemistry:

10 Marks

1. Determination of surface tension and Parachor value by stalagmometer.
2. Determination of % composition of liquid solutions by surface tension measurement.
3. Determination of viscosity and Rhechor value of liquids by viscosity measurement.
4. Determination of % composition of liquid solutions viscometrically.
5. Determination of refractive index and molar refractivity by refractometer.
6. Determination of % composition of liquid solutions by refractive index measurements.
7. Determination of heat of solution by solubility method.
8. Determination of heat of neutralization of an acid with a base.
9. A kinetic study of acid hydrolysis of EtOAc.
10. Kinetic study of saponification of EtOAc.
11. Determination of molecular weight of a compound by elevation in boiling point (ebullioscopic method).
12. Determination of molecular weight of a compound by lowering of freezing point (the cryoscopic method).
13. Determination of equilibrium constant of $KI + I_2 \rightarrow 3KI$.
14. Conductometric titration of strong acid and strong base.

Recommended Books (Physical Chemistry, Practical)

1. Crockford, H. D.; J. IV Nowell; H. W Baird and F. W. Getzen. 1976. "Laboratory Manual of Physical Chemistry" John Wiley and Sons (2nd Ed.) England.
2. Shaheen, M.A., 2017) Jilani "Manual of Practical Chemistry Laboratory" Vol-I for BS/B.Sc. Students, Jilani Notes, Sargodha, Lahore-Pakistan.
3. Das R. C. and B. Bahera. 1984. "Experimental Physical Chemistry" Tata McGraw Hill Publishing Company Limited USA.
4. Levitt B. P. 1972. "Findlay's Practical Physical Chemistry" Longman Group Limited (9th Ed.) USA.

Inorganic Chemistry

10 Marks

1. Qualitative analysis of four radicals (cations and anions) for salt mixture.
2. Chromatographic separation of cations.
3. Determination of total hardness of water using EDTA.
4. Estimation of Mn(II) using EDTA.
5. Estimation of Cu(II) iodometrically.
6. Determination of $S_2O_3^{2-}$ iodometrically.
7. Determination of ferricyanide ($[Fe(CN)_6]^{2-}$) using KI solution.
8. Determination of Cl^- by Volhard's and Mohr's methods.
9. Estimation of Cl^- using adsorption (Fluorescein) indicator.
10. Estimation of Br^- using adsorption (Eosin) indicator.

11. Estimation of %age of Fe^{2+} in the Mohr's salt using KMnO_4 solution.
12. Percentage determination of Fe^{3+} in ferric alum using KMnO_4 solution.
13. Determination of purity of commercial potassium oxalate [$\text{K}_2(\text{COO})_2$] using KMnO_4 solution.
14. Estimation of Fe^{2+} using $\text{K}_2\text{Cr}_2\text{O}_7$ solution.

Recommended Books (Inorganic Chemistry, Practical)

1. Shaheen, M.A., (2017) Jilani, "Manual of Practical Chemistry" Vol-II for BS/BSc Students, Jilani Notes, Sargodha, Lahore-Pakistan.
2. Jefferey, G. H.; Bassett, Menclham, J. and Denney, R. C. (2007). "Vogel's TextBook of Quantitative Chemical Analysis" Benjamin Cummings (5th Ed) UK.
3. Vogel, A. I. A. (1995). "Text Book of Macro and Semi-micro Qualitative Inorganic Analysis" Longamn Green & Co England.
4. Skoog, D. A.; West, D. M. and. Holler, F. J. (1994). "Analytical Chemistry" Saunders College Publications (6th Ed).
5. Pass, G., Sutcliffe, II. (1975). "Practical Inorganic Chemistry: Preparations, Reactions and Instrumental Methods" 2nd Ed., Chapman and Hall England.

ASSOCIATE DEGREE IN ARTS / SCIENCE

Computer Studies-I

Total Mark: 100

Appendix 'A'

(Outlines of Tests)

Paper-A:	Introduction to Information Technology & Computer Programming (Written)	:	70 Marks
Paper-B:	Practical	:	30 Marks

Appendix 'B'

(Syllabi and Courses of Reading)

Paper-A: Introduction to Information Technology & Computer Programming 70 Marks
This paper will consist of two sections.

Section-I: Introduction to Information Technology 35 Marks

Overview of Computer Systems: Uses, importance, future needs; Types of Computers: super, mainframe, mini, micro, desktop, notebook, personnel, and workstations. Processing of Data: data and information, text codes. Part of Computer: CPU, control unit, arithmetic unit, memory, ROM, RAM, flash technology,, flash memory, cache memory, computer clock, control bus, data bus, address bus. co-processors, types of microprocessors. Interacting with Computer: input devices, e.g. key board, keys, arrangement on keyboard, mouse trackballs, touch pads pens, touch screens, barcodereaders etc; output devices: monitors, types of monitors, resolution, refresh rate, dot pitch etc. Printers: types of printers, plotters. Storage Devices: floppy disk, hard CD, tape disk, magnetic and optical storage Types of Software: Systems software, shareware, and application software. Operating Systems: operating systems user interface, running programs, managing files, managing hardware, utility programs. Network and Data Communication: uses of network. Types of Network: LAN, WAN, Pile Server, Client/Server, peer-to-peer. Network Topologies: bus, star ring. Network Media and Hardware, Network Software, Data Communication over Telephone Lines: modem, ISDN, T1, T3 and ATM. Internet: How does internet works, backbones, gateways, addressing schemes. Features of Internet: email, news, telnet, FTP, gopher' chat' World Wide Web, online services. Accessing the Internet Application : connection through LAN. connection through modem, connection through high-speed lines.

Recommended Books:

1. Introduction to Computers” by Peter Norton.
2. Discovering Computers 2002”, G.B. Shelly. TJ. Cashman and M.E. Vermatt.
3. Introduction to Computer Science”, Scham’s Series.

Section-II: Computer Programming**35 Marks****Tool: Visual Basics:**

Introductory Programming Concept: problem solving, algorithms and pseudo code. Programming Techniques : visual programming, event driven programming, object oriented programming, structured programming. Visual Basic Integrated Development Environment. Control Elements. Data Types. Variables and Assignment Statements. Arithmetic Operators and Scope: data conversions, expressions, variable scope, declaring form and project variables and constants. Modules and Procedures: sub-procedures, event procedures, function procedures, and optional, argument. Branching and Looping: procedures, function procedures, and optional argument. Branching and Looping: relational operators and logical expressions, logical operators, if-then-Else, Case, For- Next, Looping with Do and While Ipp: Menu and Dialog Boxes ; Arrays Searching and ! Sorting: what is array, declaring arrays, using arrays, control arrays, enumerations user defined types. Error Handling. Sequential Files: file details, file operators, add report to programs, programming with fixed report length. Introductory database programming: why use database, data control, and creating data-bound controls.

Recommended Books:

1. Computer programming with Visual Basic 6" by Alka R. Harriger, Susan K. Lisack.
2. Visual Basic 6: How to Program" by Deitel, Deitel and Nieto Prentice-Hall.
3. Visual Basic" by B. S. Gottfried (2001 Schaum's outlines.
4. Using Visual Basic (Special Edition)", by Brian Siler and Jeff Sports.

Paper-B: Practical**30 Marks****Section-I:****15 Marks****Windows 2000:**

1. Exploring Windows 2000 work place: desktop component and customizing them exploring parts of a window, menu and dialog boxes, multitasking, and shutting down windows.
2. Working with the Accessories: calculator, notepad, wordpad, paint program, media player, etc.
3. Organizing files and folders using window explorer.
4. Using Windows System Tools, Working with Control Panel Installing new software and hardware
5. Using Internet: Working with Internet explorer, surfing with internet explorer, working with e-mail.

Word 2000:

1. Exploring Word 2000 work place: document, menus, toll bars, dialog boxes and other icons:
2. Saving and opening documents.
3. Editing and formatting text.
4. Formatting and printing documents
5. Working with tables and graphics
6. Working with Mail 'Merge and hyper links

Excel 2000:

1. Exploring Excel 2000 work place: workbook; worksheet, menus, toll bars, dialog boxes, and other icons.
2. Worksheet basic: entering data, editing worksheet, inserting & deleting cell, hiding data, copying data and auto fill.
3. Formatting and printing a work sheet.
4. Using functions in formulas.-
5. Creating chartsa and adding graphics.

Front Page 2000:

1. Exploring Front Page environment.
2. Designing documents: working from Page View.
3. Developing the basic page: text, list, and hyperlinks, tables, frames.
4. Enhancing pages with graphics and multimedia.
5. Publishing pages on the web.

Recommended Books:

1. "Microsoft Windows 2000 Professional : Comprehensive Course" by D. Busceh and M. Bergerud (2001).
2. "Teach Yourself: Microsoft Windows 2000-Professional" by B. Underdah.
3. "Microsoft Windows: millennium edition fast & easy", by D. Koers (2000).
4. ".Microsoft Word 2000 Simplified" from maran Graphics, IDG Books (1999).
5. "Learn Word 2000" by J. Preston. S. Preston, and R. Ferrett (1999).
6. "Excel for Windows 2000" by M.-Langer (1999).
7. "Microsoft Excel 2000: Comprehensive Course" by H.A. Napier and P.J. Judd
8. "Using Front Page 2000: special edition" by N. Randall and D. Jones (1999).
9. "Mastering Front Page 2000" by D.A. Tauber & et. al. (2001).

Section-II:**15 Marks**

Students must implement the concepts studied in theory part. For practice see examples given in "Computer programming with Visual Basic 6" by A. R. Harriger, S.K. Lisack and "Visual Basic 6: How to Program" by Deitel. Deitel and Nieto. Some practical examples AS guide line are given below:

1. Test if a given integer is odd or even.
2. Given the sides of a triangle, determine the type of the triangle.
3. Print integers in the specified range; make every alternate integer in the output negative.
4. Print Leap years in a give century.
5. Given two strings, count the number of times the second string appears in the first string.
6. Create a Program that convert Fahrenheit temperature to the Celsius scale and back again.
7. Search to a given name in an array of names.
8. Reverse an array.
9. Reverse a given string.
10. Build a scientific calculator.

**ASSOCIATE DEGREE IN ARTS / SCIENCE
ECONOMICS (ELECTIVE)-I**

**APPENDIX 'A'
(Outlines of Test)**

PAPER 'I': Basic Mathematics and Microeconomics

100

Appendix 'b'

(Syllabi and courses of reading)

NOTE

(i). In paper "I" four questions will be set from Section-I and six questions from Section-II. The candidates will be required to attempt 05 questions in all selecting 03 questions from section-I and 02 questions from section-II.

SECTION – I BASIC MATHEMATICS

1. FUNCTION AND EQUATIONS:

(i) *Function:* Relation Vs Function. Variables Constants And Parameters. Types Of Function: Linear And Non-Linear; Exponential And Logarithmic. Graphical Presentation Of Function. Examples From Micro And Macro Economics.

(ii) *Equation:* Equation Vs Identities. Solution Of Linear, Quadratic And Simultaneous Equations. Equilibrium Analysis In Economics : Partial Market Equilibrium ; Linear And Quadratic Models. Equilibrium In National Income.

2. DERIVATIVES:

The concept of derivative. The concept of limit and its relevance to derivatives. Slope vs elasticity of a Function. Rules of Differentiation: A Constant, A power, Sum, Difference, Product and Quotient Function Rule. The Derivation of Marginal Quantities in economics. The calculation of Elasticity of Demand and Supply.

3. MAXIMA AND MINIMA OF FUNCTIONS:

Optimum values vs Extreme Relative Maxima and Minima, point of inflexion, Criteria for Relative Maxima and Minima. First order condition and second order condition. Constrained Optimization. Problems of optimization in Economics: Profit, Utility and Revenue Maximization. Cost Minimization. The Equilibrium of a Consumer and a Firm. The least cost combination of Inputs.

SECTION II: MICRO ECONOMICS

1. THE NATURE AND IMPORTANCE OF MICRO ECONOMICS:

Basic problems of Micro Economics Theory. The Determination of Output composition. The Allocation Resource. The distribution of the Product and the Maintenance and Expansion to the Productive capacity of the economy. Market economy and the treatment of basic economic problems. The relative importance of market mechanism in capitalism, socialism and Islamic Economics system.

2. THE THEORY OF CONSUMER BEHAVIOUR:

The Utility Theory of Consumer Behaviour. Indifference Preference Analysis. Indifference Curves And Marginal Substitution. Consumer Equilibrium. Income Substitution And Price Effect Of Normal, Inferior And Giffen Good, Derivation Of Demand Curve From Price-Consumption Curve. Revealed Preference Theory. Price Income And Cross Elasticity Demand And Their Measurement.

3. THE THEORY OF PRODUCTION COSTS AND REVENUES:

The Concept of Production Function. Iso-Quant And Iso-Cost Curves. Marginal Rate of Technical Substitution. Optimal Combination of Resources. The Cost and Revenue of Firm.

4. THE THEORY OF FIRM BEHAVIOUR AND MARKET ORGANIZATION:

(a) Perfect Competition

Assumptions Competition. Equilibrium of A Firm and Industry during Short and Long Periods. Short and Long Periods Supply Curve of A Firm and Industry.

(b) MONOPOLY:

The Nature and Extent of PuMs Monopoly. Short-Run and Long Equilibrium Under Pure Monopoly. Dumping and Price Discrimination. Welfare Effects Of Pure Monopolies.

(c) Imperfect Competition:

Monopolistic competition and its main characteristics. Short-run and long run Equilibrium under monopolistic competition. Pricing and output determination under oligopoly. Price leadership and cartels. Inefficiencies due to imperfect competition.

5. PRICING AND EMPLOYMENT OF RESOURCES:

The Marginal Productivity Theory of Resource Pricing. The Modern Theory Of Resource Pricing And Employment. The Demand Curve of A Firm With One Variable Resource. The Demand Curve of a Firm With

Several Variable Resources. The Market Demand Curve. The Supply Curve of Resources. Resource Pricing Under Perfect Competition, Monopoly and Monopsony.

Recommended books:

(i) Chieng, Alpha C.

(ii) J.Parry Lewis

(iii) Ferguson & Gould's

(vi) Glahe, Fred R.

(v) Prof. Abdul Ghani Chaudhary

(vi) Dr. Muhammad Hussain Chaudhary

(vii) M. Hanif Aslam

Fundamentals Methods of Mathematical Economics' 3rd Edition.

"An Introduction of Mathematics Theory" And 2nd Edition.

"Microeconomics Theory" 6 Edition.

"Macroeconomics" 2nd Edition.

"Rahber-e-Muashiat"

"Economic Thoery"

"Economic Theory"

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ASSOCIATE DEGREE IN ARTS

علم التعليم (Elective)-I

(Syllabi and Courses of Reading)

برجہ الف _____ 100 نمبرز

پہلا پرچہ

- 1: تعلیم کا مفہوم
- 2: تعلیم کا فلسفیانہ پس منظر
- 3: قرآن اور حدیث کی روشنی میں فلسفہ تعلیم
- 4: قومی مقاصد تعلیم
- 5: مسلم مفکرین کے تعلیمی نظریات
- 6: اسلامی تعلیم کا آغاز
- 7: برصغیر میں مسلمانوں کا نظام تعلیم
- 8: برصغیر میں انگریزی نظام تعلیم کا مختصر جائزہ
- 9: علی گڑھ کی تعلیمی تحریک۔
- 10: دیوبند کی تعلیمی تحریک
- 11: پاکستان میں تعلیمی پالیسیوں کے اہم نکات
- 12: (الف) (تعلیمی کانفرنس 1947ء) (ب) قومی تعلیمی کمیشن 1959ء
(ج) نئی تعلیمی پالیسی 1972-1980 (د) قومی تعلیمی پالیسی 1978ء
- 13: نصاب کا مفہوم۔ اہمیت اور مقاصد
(الف) نظریاتی عوامل
(ب) نفسیاتی عوامل
(ج) عمرانی عوامل

علم التعليم

(مجوزہ کتب)

- 1: پروفیسر ڈاکٹر حافظ عبدالخالق (2004) "ایجوکیشن" ڈوگر پبلشرز اردو بازار لاہور
- 2: متیول احمد (2005) "اساسیات علم التعليم" (B.A.I, II) علمی کتاب خانہ کبیر سٹریٹ اردو بازار لاہور۔
- 3: پروفیسر عبدالغفور رفیق "آئینہ علم التعليم" (بی اے حصہ اول دوئم)۔ خالد بک ڈپو اردو بازار لاہور۔
- 4: پروفیسر مرزا نجی محمد (1997-98) (پرچہ اول دوئم) مرکزی کتب خانہ کبیر سٹریٹ لاہور۔
- 5: ایس ایم شاہد (1999-2000) "علم التعليم" (حصہ اول دوئم) مجید بک ڈپو لاہور۔
- 6: پروفیسر عبدالسلام چوہدری (2001-2002) "رہبر علم التعليم" (حصہ اول دوئم) قریشی برادرز پبلشرز اردو بازار لاہور۔

ASSOCIATE DEGREE IN ARTS
ENGLISH LITERATURE (ELECTIVE)

Appendix 'A'
(Outlines of Tests)

Paper 'I':

Marks
100

Appendix 'B'
(Syllabi and Courses of Reading)

Paper I:

A Selection of Short Stories:

"The Kite"
"The Little Willow"
"The Voice"
"The Women Who Had Imagination"
"Maria"
"The Basement Room"
"Local Boy makes Good"
"On Guard"
"A dream of winter"
"The Duchess and the Jeweler"

Selected Short Plays:

"Riders to the Sea"
"Time's Visitors"
"A Parting"
"The End of the beginning"
"An Old Friend"

Novel:

Animal Farm

Derek Hudson
Somerset Maugham
Francis Towers
V.S.Pritchett
H.E.Bates
Elizabeth Bowen
Graham Greene
John Moore
Evelyn Waugh
Rosamund Lehman
Virginia Woolf
Prof Ghulam Sarwar Qureshi &
Dr. Nousheen Khan
J.M.Synge
F, Siadin Smith
Gordon Bottomley
Sean O' Casey
Edmund See

Marks

40

40

George Orwell

20

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ASSOCIATE DEGREE IN ARTS AND SCIENCE

Essentials of Home Economics-I

Total Mark:100

Appendix 'A'

(Outlines of Tests)

Paper-A:	Food & Nutrition and Textile & Clothing (Written) :	75 Marks
Paper-B:	Practical :	25 Marks

Appendix 'B'

(Syllabi and Courses of Reading)

Paper-A: Food & Nutrition and Textile & Clothing 75 Marks

Section-I: Food & Nutrition 37 ½ Marks

1. Nutrition & Health:

- i. Brief description of basic nutrients.
- ii. Significance of nutrition for individual, family & community.
- iii. Dietary guidelines.
- iv. Dietary habits.
 - Food fads & fallacies
 - Food distribution in the family

2. Importance of Safe Food Handling:

(From farm to consumption)

- i. Use of Chemicals (Pesticides, Fertilizer etc.)
- ii. Adulteration (Use of color, Preservatives etc.)
- iii. Hygienic conditions in handling & preparation of food
- iv. Proper storage conditions for perishable & Non perishable foods
- v. Eating out.

3. Community Nutrition:

- i. Significance
- ii. Nutrition of vulnerable groups (infants / preschooler / pregnant / lactating mother)

4. Nutrition Education:

- i. Significance
- ii. Methods (formal / informal)

5. Nutrition & Disease:

- i. Causes, symptoms & dietary preventions of the following:
 - Iron deficiency anemia
 - Hypertension

- Diabetes
- Protein calorie malnutrition

6. Food Preservation:

- i. Different aspects
- ii. Preservation methods

Section-II: Textile & Clothing

37 ½ Marks

1. Textile:

- i. Classification of Textile Fibers.
- ii. Physical Properties of Textile Fibers Commonly Used: (Cotton, Silk, Wool, Rayon, Acetate, Nylon, Polyester, Acrylic)

2. Characteristics of Woven & Knitted Fabrics:

- i. Woven Fabrics includes: (Plain Weave , Twill Weave , Satin Weave)
- ii. Knitted Fabrics (Warp knit ,Weft knit)

3. Labels:

- i. Care Label
- ii. Informative label
- iii. Brand Label
- iv. Certification Label

4. Personality:

- i. Different Types of Personalities and their Characteristics: (Dainty ,Demure, Dignified Vivacious, Dramatic, Sturdy)
- ii. Selection of an appropriate dress according to various personalities with special focus on Material, Color, Design and Occasion,
- iii. Concept of Dress in Islam
- iv. Dress According to Restricted Physical Ailment: (Arthritis Patients ,Crutches Users, Paralyzed)

5. Grooming:

- i. Physical Grooming: (Care of Body)
- ii. Personal Grooming: (Walk, Talk, Carry yourself)

Paper-B: Practical

25 Marks

Section-I:

- i. Preparation & preservation of jams, squashes, pickles & chutneys.
- ii. Menu planning (for self, different socio economics levels, diarrhea, overweight, hypertension & diabetes)

- iii. Fancy dishes, (at least 2 dishes from each category: soups, salads, desserts, snacks and main dishes)

Section-II:

- i. Drafting a basic bodice block for a pre-school girl and stitching a frock with any adaptation.
- ii. General Methods of Fiber identification : (Cotton, Wool, Silk, Acetate, Polyester, Nylon, and Acrylic by Visual, Feeling and Burning tests)
- iii. An Apron, Pot Holder and kitchen Towel
- iv. One trolley Cover with Embroidery
- v. Portfolio Based on;
 - Different samples of Materials, Design, Color and Dress Styles suitable for various personalities
 - Collection of Woven and Knitted Samples (Knitted samples e.g socks, jersey, T-shirts & gents undergarments. Woven fabric e.g cotton lawn denim etc.
 - Collection of different types of Garment Labels
 - Samples of 10 hand embroidery stitches.

ASSOCIATE DEGREE IN ARTS

Fine Arts –I

Total Mark: 100

Appendix ‘A’

(Outlines of Tests)

Paper-A:	History of Indo Pakistani Art (Written)	:	30 Marks
Paper-B:	Test of Life Drawing (Practical)	:	20 Marks
Paper-C:	Test of Still Life Painting (Practical)	:	20 Marks
Paper-D:	Exhibition of Work (Practical)	:	30 Marks *

Appendix ‘B’

(Syllabi and Courses of Reading)

Paper-A:	History of Indo Pakistani Art	30 Marks
1.	Mughal Painting	Pahari Painting Rajhsthani
2.	Rajput Painting	Painting
3.	Painting in Pakistan	Allah Bakhsh, Chughtai, Sadeqain, Shakir Ali, Anna Molka Ahmed and Khalid Iqbal. Zulqarnain Haider

Paper-B,C & D: (Practical) 20,20,30 Marks

*Must be certified by the teachers concerned as being the candidates own work with name of the student and the signature of the teacher in ink at a place which cannot trimmed out. Work without certification will not be marked.

The details of the exhibition of peers works will be as under:

Drawing	3
Still Life	2
Landscapes	2
Portraits	2

ASSOCIATE DEGREE IN ARTS AND SCIENCE

Geography-I

Total Mark: 100

Appendix 'A'

(Outlines of Tests)

Physical & Human Geography

: 100 Marks

Appendix 'B'

(Syllabi and Courses of Reading)

Physical & Human Geography

100 Marks

Section-I: Physical Geography

1. The Earth and its Origin:

The universe, the solar system and the earth. Earth's origin, shape and size, rotations and revolution, composition and structure, distribution of land and water, Earth's geological history: origin and evolution of life on Earth.

2. Atmosphere:

Composition and structure of Atmosphere, Atmosphere temperature and pressure, Winds and global circulation, Air masses and fronts.

Cyclones and weather disturbances, Atmospheric moisture and precipitation, Climatic classification: Koppen's classification with special reference to the following types: Af, Am.

Bsh. Ds and Df.

3. Litosphere:

Internal Structure of the Earth, Rocks Origin, formation and types, (Igneous, Sedimentary and Metamorphic), Plate Tectonics, Mountain building, earth quakes, volcanic activity, Geomorphic processes-internal and external, Weathering, mass wasting, erosion and deposition, cycle of erosion, Landform produced by surface water, ground water, wind and glaciers, Formation and types of soils.

4. Hydrosphere:

Configuration of ocean floor, Ocean deposits, Composition, temperature, and salinity of ocean water, Movements of the oceanic water : waves, currents and tides.

Section-II: Human Geography

(a) Man-environment Interaction:

Themes of environmental determinism, possibilism and perception

(b) Population:

Distribution, age and sex structure. Population change (natural increase and migration).

(c) **Settlements:**

Rural, urban: location, form and function of settlements, Central Place Theory.

(d) **Economic Activity:**

Locational characteristics or primary, secondary, tertiary and quaternary activities

(e) **Environmental Problems:**

Ecosystem and Environmental degradation

Note: There will be two parts in paper "A". The students will be required to attempt at least two questions from each part. Each question will carry equal marks.

Recommended Books:

1. TAYLOR. J (1993) *Integrated Physical Geography London, Longman*
2. THORNBURY. W. (1991) *Principles of Geomorphology New York, John Wiley*
3. MCILVERN, J.F.R (1991) *Fundamentals of Weather and Climate London Chapman & Hall*
4. MONKHOUS, J.F. (1988) *Principles of Physical Geography London: Holder & Stoughton*
5. STRAHLER A.H. & STRAILER. A.N. (1987) *Modern Physical Geography 4th Ed. New York, John Wiley*
6. MILLER E.W. (1985) *Physical Geography Columbus. Charles E. Merrill*
7. KIMNG C.A.M (1980) *Physical Geography Oxford. Basil Blackwell*
8. TRIWARTH GT (1967) *Physical Elements of Geography 5th Ed. New York, McGraw Hill*
- ROBINSON, A.H.
- HAMMOND, E.H.
9. DE BLIJ, H.J & MULLER P.O. (1993) *Physical Geography of the Global Environment New York, John Wiley*
10. GOUDIE (1994) *The Human Impact on the Natural environment Oxford. Basil Blackwell*
11. HORNE. B. (1993) *The Integrated Human Geography London, Longman*
12. GREGORY. D & NALFORD, R. (1992) *Horizons in Human Geography London, Macmillan*

13. BARRETT,H (1992) Population Geography
London. Longman
14. BREADFORD, (1986) Human Geography OUP
M.G. and KENT W.A
15. ROBINSTEN, J.M. (1983) The Cultural Landscape; An Introduction
BARCON, R.S to Human Geography, *New Delhi Prentice Hall*
16. DEBLIJ, H.J. (1982) Human Geography New York,
John Wiley
17. DE BLIJ, H.J (1996) Human Geography 5th Ed. New York,
John Wiley

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ASSOCIATE DEGREE IN ARTS
Health & Physical Education-I

Total Mark: 100

Appendix 'A'
(Outlines of Tests)

Paper-A:	Physical Education (Written)	:	75 Marks
Paper-B:	Practical	:	25 Marks

Appendix 'B'
(Syllabi and Courses of Reading)

Paper-A: Physical Education: 75 Marks

1. Introduction to Physical Education:
2. Historical Background of Physical Education:
3. Movement Education:
4. Physical Fitness:
5. Safety Education:
6. Religious Rituals and Movement:
7. Games and Sports:
8. Track and Field Athletics:
9. Out Door Pursuits:
10. Recreation:

1. Introduction to Physical Education:

- (a) Definition.
- (b) Aims and Objectives.
- (c) Scope.
- (d) Importance in present day life.

2. Historical Background of Physical Education:

- (a) Greece.
- (b) Sweeden.
- (c) Pakistan.

3. Movement Education:

- (a) Definition.
- (b) Types of movement.
- (c) Factors affecting Movement.(Gravity, Air resistance, Mass, Miction, Equilibrium)
- (d) Developing movement concepts:
 - (i) Curling and stretching
 - (ii) Turning and twisting
 - (iii) Swinging and circling

- (iv) Balancing and weight bearing
- (v) Leaping and jumping
- (vi) Rocking and rolling
- (vii) Walking and running

4. Physical Fitness:

- (a) Definition.
- (b) Components.
- (c) Importance.

5. Safety Education:

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

6. Religious Rituals and Movement:

- (a) General importance with reference to Quran & Sunnah.
- (b) Namaz.
- (c) Haj.
- (d) Jihad.

7. Games and Sports:

- (a) Values of games and sports.
- (b) Rules and techniques of the following :

MEN	WOMEN
Hockey	Basket Ball
Volleyball	Volleyball
Football	Hockey
Tennis	Tennis

8. Track and Field Athletics:

- (a) Importance of track and field events.
- (b) Rules, regulations and techniques of the following:
 - (i) 100 meters.
 - (ii) 400
 - (iii) 1500
 - (iv) 4 x 100 meters relay.

- (v) Broad jump.
- (vi) Throwing the javelin.

9. Out Door Pursuits:

Significance and organization of the following:

- (b) Rovering (Men).
- (c) Senior guides (Women).
- (d) Mountaineering.
- (e) Hiking.
- (f) Youth Hosteling.

10. Recreation:

- (a) Definition, need and importance in the modern age.
- (b) Recreational activities (both indoor & out door).
- (c) Site selection, programming, management and budgeting.
- (d) Leadership in recreation.

Paper-B: Practical

25 Marks

1	Skill Dexterity in Games (for Men & Women)	Marks
a	Hockey	10
b	Football/Basketball	
c	Volley Ball	
d	Tennis	
2	Skill Dexterity in Athletics (for Men & Women)	10
a	100 Meters	
b	400 Meters	
c	1500 Meters	
d	4 x 100 Meters relay	
e	Board Jump	
f	Throwing the Javelin	
3	Viva Voce (Health & Physical Education)	5
a	Practical Note Book Containing Sketches of Playfields, Technique and Athletic Service	
b	Recognition of Selection on the University / Divisional / Provincial / National Teams and Recognition of Social / Community Service	

**ASSOCIATE DEGREE IN ARTS
HISTORY (ELECTIVE)-I**

PREFACE

As a matter of fact 'History' is an accurate (possible) record of past events. It provides the status of phenomenon at given times. It also provides interpretation and evaluation of problems, issues, movements and direct observation as eyewitness and indirect observation through documents, relics and remains. It helps to determine the change, growth and development of human race. It is discovery of characteristics traits, norms, and statutes in different ages.

SYLLABUS FOR HISTORY TWO-YEAR (COURSE)

Scheme of Studies

History Syllabus shall consist of two papers of 100 marks each. Students shall be asked to choose any one of the following four groups. In each paper there shall be one compulsory objective question of multiple choice, bearing 20 marks.

The four groups in B.A History are as under.

1. Islamic History

Paper A: - Advent of Islam to the Fall of Umayyad (570 AD to 750 AD)

Paper B: - History of Abbasids (750 AD to 1258 AD)
and Muslim Rule in Spain (712 AD to 1492 AD)

OR

History of Modern Muslim World. (1919 AD to 2002 AD)

2. History of Muslims of South Asia

Paper A: - History of Delhi Sultanate (712 AD to 1526 AD)

Paper B: - History of Mughals (1526 AD 1857 AD)

3. History of Pakistan

Paper A: - Genesis of Pakistan Movement (1857 AD to 1947 AD)

Paper B: - History of Pakistan (1947 AD to 2005 AD)

4. History of Europe

Paper A: - History of Modern Europe (1789 to 1945 AD)

Paper B: - International Relations and Organizations. (1945 AD to 2005 AD)

Detail of Courses

ISLAMIC HISTORY

(ADVENT OF ISLAM TO THE FALL OF UMMAYYADS)

(570 to 750 AD)

1. Pre-Islamic Arabia

Geographical, political, social, economic and religious conditions of 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 Madina. Socioeconomic and cultural foundations including contributions of Ashab-e-Suffa.

Brotherhood, the Madina charter, wars with Quraish, (battle of Badar, Uhud and Ahzab); the peace accord of Hudaibiyya; the Prophet's letters to the various rulers; the conquest of Makkah; 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. Hazart Abu Bakar (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 center; the conquest of Iraq; relations with Iran, Syria, and Byzantine; the compilation of the Quran; his character and achievements.

4. Hazart Umar Bin Khattab(RA)

His early life and acceptance of Islam, his services for the cause of Islam, his role during the caliphate of Abu Bakar; 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 Usman (RA)

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

6. Hazrat Ali (RA)

His early life; his services for the cause of Islam; 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-e-Rashidin

Administrative, financial and judicial system under the Pious Caliphs, the status of the Dhimmis and the "Mawali", the social life of the Muslims, salient features of the Khilafat-e-Rashida.

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". Siege of Makkah.

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 character.

11. Abdul Malik Bin Marwan

Political conditions 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 Constantinople; 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; Abbasid Movement; propaganda and the causes of success.

16. Down Fall of Umayyad

Fall of the Umayyads dynasty and causes of decline.

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 Administration.
- 5) Mazharuddin Siddiqui, Development of Islamic State and Society.
- 6) Cambridge Lewis: Islam, (Relevant Chapters).
- 7) Bernard Lewis: Islam and the World.
- 8) Philip K. Hitti: History of the Arabs.
- 9) Habib Hourani: History of the Arabs.
- 10) Montgomery Watt: Muhammad at Mecca Muhammad at Madina.
- 11) Shaban: Abbaside Revolution. Cambridge.

HISTORY OF MUSLIM RULE IN SOUTH ASIA

(712 to 1526 AD)

(Conquest of Sindh – Delhi Sultanate – up to the Advent of Mughals)

1. **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 Sindh, settlement of Brahmanabad – political, cultural, religious and social impacts of the conquests. City states of Makran, Mansurah, and Multan.
2. **Sultan Mahmud of Ghazna**

Causes of his Indian campaigns; its significance and impact. Character and achievements. Alberuni and his contributions.
3. **Ghaznavides at Lahore**

Lahore as a centre of art and Literature. Downfall of Ghaznavids and re-emergence of minor states.
4. **Sultan Shahab-ud-Din Muhammad Ghorī**

His Indian campaigns, Character and achievements, Muizzi Maliks-causes of the defeat of Hindu India.
5. **Ilburi Turks**

Sultan Qutbuddin Aibak, Sultan Shams-ud-Din Iltutmish, 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.
6. **Khalji Dynasty**

Significance of Khalji Revolution – Feroz Khalji and his character; Sultan Alauddin Khalji, his reforms and conquests, Deccan policy; Malik Kafur, Qutbuddin Mubarak and end of the Khalji Dynasty.
7. **Tughluq Dynasty**

Ghiasuddin Tughluq: his administration and character: Sultan Muhammad 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.
8. **Sayyids**

Khizar Khan: Character and achievements.

9. **Lodhis**

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

10. **Contemporary independent Kingdoms**

Bahmani, Vijaynagar, Sindh, and Kashmir.

11. **Downfall of the Sultanate of Delhi**

The causes of the downfall of Sultanate of Delhi.

12. **Administration of Delhi Sultanate**

Central and Provincial departments, army, land revenue system, and Judiciary.

13. **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.

14. **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 Indo 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. Qurshi, The Muslim Community of the Indo-Pakistan Sub-continent.
7. I.H. Qurshi, The Administration of the Sultanate of Delhi.
8. I.H. Qurshi, 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 PAKISTAN
GENESIS OF PAKISTAN MOVEMENTS

(1857 to 1947 AD)

1. **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.

2. **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.

3. **Religious and Educational Movements and Institutions of the Muslims.**

Dar-ul-Aloom Deoband, Tehrik-i-Mujahudeen, Hur Movement, Tehrik-i-Rashmi Romal, Nadva-tul-Aulema Lucknow, Anjuman Himayat-i-Islam, Muhammad literary Bengal, Sindh Madrasa-tal-Islam Karachi, and Islamia College, Peshwar.

4. **Hindu Revivalist Movements**

Arya Samaj, Barhamosamaj, Theosophical society, Ramakrishana Mission.

5. Indian National Congress

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

6. Syed Ameer Ali

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

7. Urdu Defence Movement

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

8. Partition of Bengal-1905

Partition of Bengal; its causes, Swadeshi movement and revitalization of Hindu nationalism and its impacts on Muslims. Hindu reaction to partition of Bengal and its annulment.

9. Formation of All India Muslim League- 1906

Simla Deputation and its proposals. Formation of Muslim league; its objectives and evolution.

10. Minto--Morley Reforms 1909

Salient features of Minto—Morley Reforms of 1909.

11. Hindu Muslim Unity

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

12. Dyarchy system and its failure

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

13. 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.

14. Government of India Act-1935

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

15. 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).

16. 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.

17. The Demand for Pakistan: 1940-47

Lahore Resolution – 1940, August offer, Cripp's proposal of 1942, Quit India Movement—1942, Gandhi Jinnah talk—1944, Wavell plan—1945 and the Shimla 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 Mountbatten and 3rd June plan, Indian Independence Act. – 1947, Radcliffe Award, emergence of Pakistan as a sovereign Muslim state.

18. Quaid-I-Azam Muhammad Ali Jinnah

His life and services for the cause of Pakistan. His character and personality estimate.

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-ul-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 EUROPE

HISTORY OF MODERN EUROPE

(1789-1945 AD)

1. French Revolution

Background, causes of the French Revolution, role of French Philosopher, estate general, work of the National Assembly, the role of 3rd estate, England's reaction, parties in the Legislative Assembly, the fall of monarchy, European coalition against France and the War, the second and the third partition of Poland, the reign of Terror and the end of terror. The France and Europe from 1793-1795.

2. Napoleon Bonaparte

The rise of Napoleon to power, Napoleon as emperor, statesman and warrior. His reforms, Napoleon and Europe, the continental system, Wars and the downfall.

3. Vienna Settlement and Concert of Europe

Treaty of Chaumont, first & second treaties of Paris, treaty of Vienna, alliances, congress system and failure of congress system, the British leadership.

4. Europe 1815-1848

The age of Metternich 1814 to 1848. The Forces of change and progress, nationalism, democracy, liberalism, socialism. Restoration of Bourbons in France, the revolution of 1830, Louis Philip Revolution of 1848 in France and effects in Europe. Subsequent revolution in Austria/Hungary, German and Italian States.

5. The Industrial Revolution in Europe

Scientific discoveries and its impacts.

6. The Eastern Question (1820-1878)

Background, the Greek revolt 1820 to independence 1832, the Crimean war 1853 to 1856, the CZAR, Alexander II of Russia, Napoleon III, peace treaty of Paris - Pan Slavism. The Russo-Turkish war 1877. The treaty of San-stefano the congress and the treaty of Berlin 1878.

7. Unification of Italy

Background – Revolutionary movements in Italy. The role of Mazzini, Cavour and Garibaldi in the unification of Italy. Napoleon III and Italian unity. Foreign policy of Italy after the unification.

8. Unification of Germany

Background Napoleon and Germany rise of Prussia, Zollverein, Revolution 1848 and Germany. Rise of Bismark and his role as the architect of German unification. Wars with Denmark, Austria and France. Domestic and foreign policy of Bismark since 1870.

9. The Growth of Colonisation

Different forms of colonization; British colonial policy and expansion. The French colonial policy and expansion. The French in North Africa. Suez canal. Anglo French control in Egypt, Russia in the Caucasus and Turkistan. Anglo Russian results of colonial Development.

10. Road to the First World War

System of alliances and counter alliances. Drickairerbund, Austro-German alliance 1879, triple alliance 1882, the formation of dual alliance 1891-93; Anglo—Japanese alliance, French—British and Russo British Entente.

William II's accession, personal rule, militarism and Foreign Policy- third republic in France, difficulties and work. The second phase of eastern question. Russo – Turkish war 1877. Congress of Berlin.

importance and effects. partition and effects. Partition of Africa. European intervention in China, Boxer Revolt, Russo Japanese war 1902. Balkan wars.

11. First World War

Causes of the World War-I events, USA's entry into the War, Wilson's 14 points, the choice of the Turks, War in the Middle east, Britain's Middle East Policy during the war. Balfour declaration, defeat of Germany, Austria and Turkey, the effects of the War.

12. Peace Treaties and League of Nations

The treaty of Versailles—1919. The treaties of St. German and Trianon. The Treaty of Sevres, the treaty of Lausanne.

The covenant of the League of Nations; its role and causes.

The political developments in Europe between two World Wars.

13. Marxism and Soviet Union

The Russian Revolution 1917, Lenin, the third international treaty 1919, civil war in Russia, Trotsky, Stalin, the Russian foreign policy between the two World Wars.

14. Italy and Fascism

Effects of the war on Italy, Mussolini's rise to power, Fascist party and principles, Italy's Foreign policy between two world wars.

15. Germany and Nazi – ism

Germany from the treaty of Versailles to Hitler, origin of Nazi-ism, "Mein Kampf", Hitler's rise to power, domestic and foreign Policy of Hitler.

16. Spanish Civil War

Involvement of foreign powers. The emergence of dictatorial rule under General Franco.

17. France and England

Collapse of third republic, foreign policy of France between the two World Wars.

Chamberlain's Policy of appeasement. Economic Depression of 1929 and England. Stability of British Common Wealth. Foreign Policy of Britain during the two world wars.

18. The Second World War

Causes, events, and effects of the War. The peace settlement and the establishment of UNO.

Suggested Readings:

1. R. Palmer, A History of Modern World.
2. David, Thomson, Europe Since Napoleon.
3. Temperley, Grant, A.G., Europe in the Nineteenth and Twentieth century.
4. C.A Leeds, European History: 1789-1914.
5. G.A Craig, Europe since 1815.
6. W.N. Modlicot, W.N., Bismark and Modern Germany.
7. Stephen J. Lee, History of Europe.
8. Raghumbher Dayal, A Textbook of Modern Europe in History.
9. Ikram Ali Malik, A Textbook on the History of Modern Europe 1789-1919, 1984, Lahore.
10. T.K. Derry, and Jarman, The European World 1870—1945.
11. C.A. Leeds, European History 1789—1914.
12. H. Nicoloson, A History of Modern Europe 1889-1917.
13. A.J.P. Taylor, A Struggle for Mastery in Europe, 1848-1918.
14. H.L. Peacock, A History of Modern Europe 1789-1968.
15. K. Perry, U.K., Modern European History, 1989.
16. S.W. South Gate, A Text book of European History 1643-1948, Rot. 1958.

**International Relations as
Elective Subject at Associate Degree in Arts**

International Relations shall be offered as an elective subject of 200 marks in Associate Degree in Arts examinations. It shall be comprised of two papers each of 100 marks. Following are the out-lines/contents of this course along with the core and the suggested books:

PAPER I: INTRODUCTION TO INTERNATIONAL RELATIONS

CONTENTS:

1. The Nature and Evolution of International Relations.
2. The Nature and Development of Modern State-System.
3. Sovereignty and National Interest.
4. Colonialism, Imperialism, Neo-Colonialism and Nationalism.
5. National Power. Elements of National Power.
6. Balance of Power and Deterrence.
7. Foreign Policy: Determinants and Objectives.
8. Diplomacy.
9. International Law and Morality.
10. Economic Aspects of International Relations
11. The Concept of War and Peace in International Relations.
12. New Trends in International Relations.
13. Ideologies and ideological movements in the 20th century (Nationalism Totalitarianism, Fascism, Nazism, Communism & Socialism)

REQUIRED TEXT.

1. Columbus, Theodore, Introduction to International Relations: Power, New Delhi: Prentice-Hall, 1992.
2. Kegley, Charles, W. Jr., & Wittkopf, Eugene R., World Politics: Trend & Transformation. (4th ed.) New York: St. Martin's Press, 1993.
3. Papp, Danial , Contemporary International Relations. (3rd ed.), New York: Macmillan, 1990.

Further Suggested Readings:

1. Aaron , Raymond, Peace and War: Theory of International Relations, Melbourne: :Kreiger Pub. 1981.
2. Bull, H., & Watson, A., The Expansion of International Society. London: Oxford University Press, 1986.
3. Caplin, William D., Introduction to International Politics. Englewood Cliffs: Prentice-Hall, 1980.
4. Deutsh, K. W., The Analysis of International Relations. Englewood Cliffs: Prentice-Hall, 1978.
5. Frankal, Joseph, International Relations in a Changing World. (4th ed.), New York: Oxford University Press, 1991.
6. Goldstine, Joshua S., International Relations, Washington D.C., Harper Collins, 1992.
7. Hartman, Fredric, The Relations of Nations. (6th ed.), New York: Macmillan, 1983.
8. Hass, Ernest B., & Witing , Allen S., Dynamics of International Relations. New York: McGraw-Hill, 1956.
9. Holsti, K.J., International Politics: A Framework for Analysis. (7th ed.), Englewood Cliffs, :: Prentice-Hall, 1995.
10. Palmer, Norman D, & U International Relations. Parkins, Howard C., New York: Houghton Mifflin Co., 1994.
11. Morgenthau, Hans J., Politics Among Nations: The Struggle for Power and Peace (7th ed.), : New York Knopf, 1985.
12. Rosenau, Steven, J., The Logic of International Relations. (3rd ed.), Cambridge: Winthrop, 1980.
13. Reynolds, P. A., An Introduction to International Relations. (2nd ed.), London: Longman, 1980.
14. Schuman, Frederick, International Politics. New York: Mc Graw-Hill, 1969.
15. Wright, Quincy, The Study of International Relations. New York: Irvington Pub. 1986.
16. Zeigler, David, War, Peace and International Politics. (6th ed.), Boston: Little, Brown and Co, 1993.

ASSOCIATE DEGREE IN ARTS

اسلامیات اختیاری۔ پرچہ 1

20	2x10	نصاب سے معروضی سوال۔ (10 جملے کرنا ہوں گے)	1-
10		تعارف تفسیر پر سوال۔ (دو میں سے ایک سوال حل کریں)	2-
15		سورہ بقرہ کے سلیبس میں سے لفظی یا یا محاورہ ترجمہ (دو میں سے ایک جزو کریں)	3-
15		سورہ نور میں سے لفظی یا یا محاورہ ترجمہ (دو میں سے ایک جزو کریں)	4-
15		سورہ بقرہ کے عنوانات (دو میں سے ایک حل کریں)	5-
15		سورہ نور کے عنوانات (دو میں سے ایک حل کریں)	6-
10		خط کشیدہ الفاظ کی وضاحت (گر آئمہ۔ فعل ماضی۔ مضارع، فعل امر، نہی، مرکب اضافی، مرکب توصیفی، ابواب ثلاثی مجرد۔ ثلاثی مزید فیہ)	7-
100	کل نمبر		

ضمیمہ ب (نصاب کی تفصیل)

القرآن الکریم پرچہ 1

- 1- تعارف تفسیر
تفسیر کا معنی و مفہوم اور اس کی ضرورت و اہمیت
تفسیر کی اقسام (تفسیر بالمأثور تفسیر بالرأی)
تفسیر قرآن مجید کے مآخذ۔ (قرآن مجید حدیث نبوی ﷺ۔ اقوال صحابہ کرام۔ اقوال تابعین)
(ماخذ پر مجموعی سوال پوچھا جائے گا)
قرآن مجید کا دیگر کتب ماہیہ سے موازنہ
سورۃ البقرہ: آخری تیس رکوع
سورۃ النور: مکمل
دونوں سوورتوں میں سے با محاورہ یا لفظی ترجمہ پر مبنی سوال پوچھا جائے گا۔
- 2- مجوزہ عنوانات کا مطالعہ
سورۃ البقرہ کے آخری تیس رکوع میں سے مندرجہ ذیل موضوعات پر جامع مضمون تحریر فرمائیے۔ (مطلوع عدت رضاعت، مہر، اتفاق فی سبیل اللہ، حرمت اربو۔ مہانت، جہاد فی سبیل اللہ، حلت و حرمت کے مسائل۔
سورۃ النور کی روشنی میں مندرجہ ذیل موضوعات پر جامع مضمون۔
صفات اہلبیہ۔ حدود اللہ۔ حد زنا۔ حد قذف۔ لعان۔ واقعہ کلب۔ ابلاغیات کا اسلامی تصور (اشاعت، قس کی ممانعت)۔ احکام پردہ۔ استیذان۔ اطاعت رسول ﷺ مجلس نبوی کے آداب۔ حکومت اہلبیہ کا قیام۔ حسن معاشرت۔
- 3- جملہ اسیہ و فعلیہ۔ مرکب اضافی۔ مرکب توصیفی۔ اسم الفاعل۔ اسم المفعول۔ فعل ماضی۔ مضارع۔ امر و نہی۔ ثلاثی مجرد و ثلاثی مزید فیہ کے ابواب کی پہچان۔
معروضی سوالات پرچہ الف کے تمام اجزاء پر مشتمل ہوں گے۔

ASSOCIATE DEGREE IN ARTS

صحافت اختیاری (Journalism Elective)

100 نمبر

پرچہ (الف) ابلاغ اور صحافت کی مختلف صورتیں
ابلاغ اور صحافت۔

-1

(الف) ابلاغ کیا ہے؟ ابلاغ کی اہمیت۔

(ب) ابلاغ کے مختلف انداز اور ذرائع

۱۔ زبان

۲۔ اشارے اور علامتیں

۳۔ چہرے کے تاثرات

(ج) ابلاغ عام اور اس کے مختلف ذرائع

۱۔ 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

مطبوعہ صحافت - اخبارات و رسائل

-2

(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

۱۔ خبر کی تعریف

۲۔ خبر کی ہیئت اور زبان

۳۔ خبر کے لوازمات اور خبری اقدار

(س) اداریہ

۱۔ تعریف اور اہمیت

۲۔ ہیئت

۳۔ اقسام اور اسلوب

(ط) کالم

۱۔ تعریف اور اہمیت

۲۔ اقسام

۳۔ مقاصد

(ع) فیچر

۱۔ تعریف اور اہمیت

۲۔ ہیئت

۳۔ اقسام اور اسلوب

(غ) مراسلات

۱۔ اہمیت

۲۔ انتخاب اور ایڈیٹنگ کے اصول

(ق) مطبوعہ صحافت کی اہمیت اور ذمہ داریاں

ریڈیو بحیثیت ذریعہ ابلاغ عام

-3

- (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 ڈراما اور فیچرز کا تنقیدی جائزہ
 (ر) سماجی اور اقتصادی ترقی میں ریڈیو کا کردار
 (ص) اخبار اور ریڈیو خبروں کا فرق

4۔ ٹیلی ویژن بحیثیت ذریعہ ابلاغ

- (الف) ٹیلی ویژن کی اہمیت اور اثرات
 (ب) قومی تعمیر و ترقی میں ٹیلی ویژن کا استعمال
 (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

5۔ زبان کے مختلف استعمال

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

تجویز کردہ کتب:

- ۱۔ فن ادارت، ڈاکٹر سکین حجازی
 ۲۔ فن صحافت، ڈاکٹر عبدالسلام خورشید
 ۳۔ خبر نویسی، ڈاکٹر اسے آرمالڈ

SUBJECT: LIBRARY SCIENCE

ASSOCIATE DEGREE IN ARTS (ELECTIVE COURSE)

PAPER-I

Revised Contents/Outline:

1- Introduction to Libraries

Definition and objectives of libraries
Types of libraries
Various sections of libraries
Importance of libraries in education and society
Qualities of a good librarian
Qualities of a good library user

2- History of Books and Libraries

History and origin of libraries
History of book from ancient to present
Some important libraries of Pakistan

3- Library Material

A) - Books, Periodicals, Newspapers, Reports, Theses

B) - Non-Printed materials

manuscripts, audio visual materials, microforms, motion pictures, floppy disk and CDs,
Online Digital Resources

4- Bibliographic description of printed materials

Meaning and definition of bibliography
Scope and importance of bibliography
Bibliographical description: books, journals, newspaper

5- Classification

Meaning and definition of classification
Introduction to Dewey decimal classification Schemes
Description and Components of DDC
1st and 2nd Summaries of DDC
Call No: an introduction

6- Classification Practical (worth 20 %)

ASSOCIATE DEGREE IN ARTS

Persian Elective - I

Appendix 'A'

(Outlines of Tests)

1. Translation of the passage from the text into Urdu. (Prose) (20)
2. Urdu translation and explanation of the passage from the text. (Poetry) (20)
3. Critical and biographical questions on any one of the following: (15)
Saadi, Muhammad Hijazi, Amir Khusrau, Jami and Iqbal.
4. Persian Grammar (Conjugation "گردان" of Past, Present and Future Verbs, (5)
Infinitive مصدر Aorist مضارع and their meanings)
- (ii) Definition and Examples of the following Rhetorics. (10)
تشبیہ استعارہ مجاز مرسل کنایہ
5. Translation from Urdu to Persian. (10)
6. Objective questions relating to the syllabus. (20)

Appendix - B

(Syllabus and Courses of Reading)

حصہ نثر

- 1- سعدی شیرازی انتخاب از گلستان
منتخب حکایات از باب اول حکایت نمبر 5 '10' 19 '26
باب دوم حکایت نمبر 2
باب ہفتم حکایت نمبر 2
باب ہشتم: حکمت: مال از بہر آسائش عمرست ----
---- عمر در سر تحصیل مال کرد و خورد
حکمت: منکب آنت کہ خود پیوید ---- نادان چو میل غازی بلند آواز میان شیخ ----
حکمت: تمیزی ارادت ---- باز عایدی کہ کبر در سردار
- 2- عید زاکانی
انتخاب از اخلاق الاشراف
مذہب منسوخ: در سیر اکابر سلف ---- نگرستن میدانم
مذہب مختار: اصحاب بنامند کہ ---- میکن دیگویی
مذہب منسوخ: اکابر سلف عدالت را ---- کار فرمودندی۔
مذہب مختار: امام مذہب اصحابا ---- ترایہ بود۔
- 3- اورنگ زیب عالمگیر
انتخاب از رقعات عالمگیری
1- پیام پادشاہ برادرہ گلان سلطان محمد معظم شاہ عالم
مہین پور خلافت! ---- ملک داری کناد۔
2- پیام پادشاہ برادرہ محمد معظم شاہ
i- فرزند عالی جاہ! روزی سہد اللہ خان ---- رفیق باد
ii- فرزند عالی جاہ! ما شمارا خوش جوین۔ ---- از تالی آدم کار آہ۔
iii- فرزند عالی جاہ! جانا! عزیز! ---- مبادا ازین بہتر گردد
iv- فرزند عالی جاہ! اعلیٰ حضرت از سہد اللہ خان پرسیدند۔ ---- دوست افتادنی است
انتخاب از چہار مقالہ
نظای عروضی سرقدی
مقالہ دوم فصل۔ در چگونگی شاعر و شاعران
- 4-

8- پروین اعتصامی انتخاب از دیوان پروین اعتصامی
i- اشک یتیم ii- گل یہان iii- مردوزن

مجوزہ کتب

- 1- گنج سخن فارسی حصہ اول شائع کردہ آزاد بک ڈپوسٹ گودھا۔
- 2- تاریخ ادبیات در ایران از دکتر ذبیح اللہ صفا
- 3- ادب نامہ ایران از مستجول بیگ بدخستانی
- 4- شعر انجم از مولانا شبلی نعمانی
- 5- حیات سعدی از مولانا الطاف حسین حالی
- 6- پاکستان میں فارسی ادب جلد پنجم از ڈاکٹر ظہور الدین احمد
- 7- جدید ایرانی ادب از ڈاکٹر ظہور الدین احمد
- 8- دبیر عجم از اصغر علی روی۔
- 9- خودآموز فارسی از ڈاکٹر فیروز الدین رازی
- 10- خیام از سید سلیمان ندوی
- 11- کلیات امیر خسرو از صلاح الدین اقبال

**ASSOCIATE DEGREE IN ARTS
PHILOSOPHY (ELECTIVE)**

**Appendix 'A'
(Outlines of Tests)**

Paper 'A': Greek Philosophy

Marks 100

**Appendix 'B'
(Syllabi and Courses of Reading)**

Paper 'A': Greek Philosophy:

From earliest beginnings to Aristotle.

- (i) **Philosophy of nature:** Thales, Anaximander, Anaximenes, Pythagoreant.
- (ii) **The problem of change:** Heraclitus, Parmendies, Zeno.
- (iii) **System of compromise:** Empedocles, Anaxagoras, Democritus.
- (iv) **Problem of knowledge and conduct:** The Sophists, Scocrates.
- (v) **The age of reconstruction:** Plato and Aristotle.

Books Recommended:

1. Stace, W.T. A Critical History of Greek Philosophy.
2. Cassin, C.C., An Introductory History of Greek Philosophy.
3. Ahmad, Naeem: ~~www.su.edu.pk~~ The Ilmi Kitab Khana, Urdu Bazar, Lahore.
4. Chohan, M. Rafiq ~~www.su.edu.pk~~ Ilmi Kitab Khana, Urdu Bazar, Lahore.

ASSOCIATE DEGREE IN SCIENCE

Physics-I

Total Mark: 100

Appendix 'A'

(Outlines of Tests)

Paper-A: (Written) 75 Marks

Section-I: Mechanics (4 Q)

Section II: Waves, Oscillations and Optics (3 Q)

Section III: Thermodynamics and Kinetic theory of gases (3 Q)

Paper-B: Mechanics, Thermodynamics, Sound and Optics (Practical) 25 Marks

Note:

"Out of the Whole Syllabus (for a paper) there will be 10 questions as usual and the candidate will have to attempt 5 out of 10 questions. However;

There will be three Sections. Section I will be of four questions while remaining two sections will have three questions each. The candidate will have to attempt five (5) questions selecting not more than two (2) questions from each section.

Furthermore there will be 2 to 3 parts of question in each Section. One of the parts will be either numerical or a question related to the Physical significance of the topic (conceptual question)."

Appendix 'B'

(Syllabi and Courses of Reading)

Paper-A: Written (Time: 3 Hours)

75 Marks

Note: Attempt five (5) questions selecting not more than two (2) questions from each section.

Sr. No.	Section	Subject
1	Section-I	Mechanics
2	Section-II	Waves, Oscillations and Optics
3	Section-III	Thermodynamics and Kinetic theory of gases

Section-I: Mechanics:

Vector Operations:

Topic	Scope
Vector in 3 dimensions	Introduction: Direction cosines Spherical polar-co-ordinates: applications
Vector derivatives and operation	Divergence and curl of a vector, and gradient of a scalar point functions.

Gradient Divergence and Curl of a vector point function	Physical application of each type; Divergence, curl of a vector field, surface & line integrals and their mutual relationships.
Divergence Theorem	Derivation, physical importance and application to specific cases. Converting from differential to integral forms
Stokes' Theorem	Derivations, physical significance and applications to specific cases.
PARTICLE DYNAMICS	
TOPIC	SCOPE
Advanced application of Newton's laws. Dynamics of uniform motion	Frictional forces : microscopic basis of this force Conical pendulum: The rotor circular and the banked curve.
Equations of motion	Deriving kinetic equations $x(t)$. $v(t)$ using integrations. Constant and non-constant forces and special examples
Time-dependent forces	Obtain $x(t)$. $v(t)$ for this case using integration method.
Effect of drag forces on motion	Apply Newton's Laws to obtain $v(t)$ for the case of motion with time dependent drag (viscous
Non-inertial frames and Pseudo forces	Qualitative discussion to develop understanding. Calculation of pseudo forces for simple cases (linearly accelerated reference-frames). Centrifugal forces as an example of pseudo force: carioles force.
Limitations of Newton's Laws	Discussion
Suggested Level	Ch: 6 R.H.K.

Work and Energy

Topic	Scope
Work done by a constant force. Work done by a variable force (1- 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
Work done by a variable force (2-dimensional case)	Obtaining general expression for force 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	
Reference Frames	Energy changes with respect to observers in different inertial frames
Suggested level.	Ch. 7 of R.H.K
Conservation of Energy	
Topic	Scope
Conservative and non-conservative Forces	Definition of either type of force & examples: work done in a closed path 1- D conservative system: force as the gradient of potential energy: applications to the case of a spring and force of gravity.
One dimensional conservative system	Obtaining velocity in terms of U and E: stable unstable and neutral equilibrium. Analytic solution for x(t).
2 and 3-dimensional conservative systems	Change in P.E. for motion n 3-d. forces as the gradient of the potentials. Work done in 2 and 3-dimensional motion.
Conservation of energy in a system of particles	Law of conservation of total energy of an isolated system.
Suggested level	Ch: 8 of H.RK
Systems of Particles	
Topic	Scope
Two particle systems and generalization to many-particle system	Center of mass: Its position, velocity and equation of motion.
Center of mass of solid objects	Calculation of center of mass of solid objects using integral calculus. Calculating the CM. of:
	Uniform Rod Cylinder 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)
Suggested level	Ch. 9 of R.H.K.

Collisions	
Topic	
Angular momentum; angular velocity	Definition, conservation of angular momentum, effects of Torque.
Overview of rotational Dynamics.	Relationships between linear & angular variables; scalar and vector form. Kinetic energy of rotation; Moment of Inertia.
Parallel axis theorem.	Prove and illustrate; apply to simple cases
Determination of moment of inertia of various shapes	Equations of rotational motion and effects of applications of torques.
Rotational dynamics of rigid bodies	
Combined rotational and transnational motion	Rolling without slipping
Stability of spinning objects	Discussion with examples Effects of torque on the angular momentum
The spinning Top	Precessional motion.
Suggested level	Ch. 12 & 13 H.R.K.
Gravitation	
Topic	Scope
Review of basic concepts of gravitation. Gravitational effect of a spherical mass distribution	Mathematical treatment.
Gravitational Potential Energy	Develop using integration techniques, calculation of escape velocity
Gravitational field & Potential	Develop the idea of field of force.
Universal Gravitational Law	Motion of planets and Kepler's Laws, (Derivation & explanation). Motion of satellites. Energy considerations in planetary and satellite motion. Qualitative discussion on application of gravitational
Suggested level	Ch: 16 H.R.K
Bulk Properties of Matters	
Topic	Scope
Review of basic concepts of gravitation Gravitational effect of a spherical mass distribution.	Mathematical Treatment
Gravitational Potential Energy	Develop using integration techniques, calculation of escape velocity
Gravitational field & Potential	Develop the idea of field of force.
Universal Gravitational Law	Motion of plants and Keplers Law, (Derivation & explanation) Motion of Satellites. Energy considerations in planetary and satellite motion Qualitative discussion on application of gravitational law to the Galaxy
Suggested levels	Ch: 14 H.R.K.
Fluid Statistics	Variation of pressure in fluid at rest and with height in the atmosphere.
Surface tension.	Physical basis: role, information of drops and bubbles.
Suggested levels:	Ch: 17 H.R.K.

Fluid Dynamics	General concepts of fluid flow: streamline and the equation of continuity.
Bernoulli's Equation	Derivation and some applications such as dynamic lift, thrust on a rocket
Viscosity	Physical basis: obtaining the coefficient of viscosity. practical examples of viscosity: fluid flow (Poiseuille's law)
Suggested level	Ch. 18. H.R.K.

Special Theory of Relativity

Topic	Scope
Trouble with Classical Mechanics	Qualitative discussion of the inadequacy of paradoxes in classical ideas of time, length and velocity.
Postulates of Relativity The Lorentz Transformation, Inverse Transformation	Statements and discussion. Derivation. Assumption on which derived, application of the same transformation of velocities
Consequences of Lorentz transformation	Relativity of time; Relativity of length
Relativistic momentum	Derivation
Relativistic energy	Derivation of $E = mc^2$
Suggested level	Partially covered by Ch: 21 of H.R.K

Section-II

Waves, Oscillations and Optics: Waves

Topic	Scope
Mechanical waves, Traveling waves	Phase velocity of traveling waves: sinusoidal waves: Group speed and dispersion.
Waves Speed	Mechanical analysis
Waves equation	Discussion of solution
Power and intensity in wave motion	Derivation & discussion
Principle of superposition, (basic ideas).	Interference of waves, standing waves, Phase changes on reflection, natural frequency and resonance.
Suggested level	Ch: 19 of H.R. K

Oscillations	
Topic	Scope
Simple harmonic oscillation (SHM)	Obtaining and solving the basic equation of motion $x(t)$. $v(t)$. Energy consideration in SHM (viscous) forces, terminal velocity. Projectile motion/air resistance.
Application of SHM	Torsional Oscillator. Physical pendulum, simple pendulum.
SUM and uniform circular motion combinations of harmonic motions	Lissajous patterns
Damped Harmonic Motion	Equation of damped harmonic motion discussion of its solution.
Suggested level	Chapter 15 of RHK
Sound	
Topic	Scope
Beats phenomenon	Analytical treatment
Doppler Effect	Moving source, moving observer, both object and source moving.
OPTICS Interference	Coherent sources. Double slit interference (analytical treatment).
Adding of electromagnetic waves (Phasor method)	
Interference from thin films	Newton's rings (analytical treatment)
Michelson Interferometer	Discussion to include the use of a compensating plate. Michelson interferometer and its use in determining the velocity of light.
Fresnel Biprism	Basic ideas and usage.
Suggested level	Ch: 45 of H.R.K.
Diffraction	Diffraction at single slit. Intensity in single slit, diffraction using Phasor treatment, analytical treatment using addition of waves. Slit interference & diffraction combined. Diffraction at a circular aperture
Diffraction from multiple slits	Discussion including width of the maxima
Diffraction grating	Discussion, use in spectrographs. Dispersion and resolving power of gratings.
Suggested level	Ch: 46. 47 of H.R.K.
Holography	Qualitative discussion
Polarization	Basic definition production of polarization by polarizing sheets by reflection, by double refraction and double scattering.
Description of polarization states	Linear, Circular and elliptic polarization.
Rotation of plane of polarization	Use of polarimeter.
Suggested level	Ch. 48 of H.R.K

Section-III**Thermodynamics and Kinetic Theory of Gases:****Temperature:**

Topic	Scope
Concept of temperature and Zeroth law of thermodynamics	
Kinetic theory of the ideal gas. work done on/by an ideal gas	Review of previous concepts
Internal energy of an ideal gas	To include the equipartition of energy
Intermolecular forces	Van der Waals equation of state
Quantitative discussion.	
Suggested level	Ch. 21.22 of H.R.K (Vol-1)

Statistical Mechanics

Topic	Scope
Statistical distribution and mean values	Mean free path and microscopic calculations of mean free path.
Distribution of molecular speeds	Maxwell distribution; Maxwell-Boltzmann energy distribution, internal energy of an ideal gas.
Brownian motion	Qualitative description, Diffusion, Conduction and Viscosity.
Suggested level	Ch:22 of H.R.K. Vol-I

Heat

Topic	Scope
Review of previous concepts. First law of thermodynamics, transfer of heat	First law of thermodynamics & its applications, cyclic and free expansion.
Suggested level	Ch:23 of H.R.K Vol.I

Entropy and Second Law of Thermodynamics

Topic	Scope
Reversible and irreversible process	Definition and discussion
Second Law	Definition, Heat engine, Refrigerators and Second
Cycle: Carnot engines	Calculation of efficiency of heat engines.
Thermodynamic temperature scale	Absolute zero, negative temperature (discussion)
Entropy	Entropy in reversible process.
	Entropy in irreversible process.
	Entropy and second law of thermodynamics.
	Entropy & probability.
Suggested level	Ch:24 of H.R.K

Sr. No.	Subject
1	Mechanics
2	Waves, Oscillations and Optics
3	Thermodynamics and Kinetic Theory of Gases

List of Experiments for Practical Paper "B"**1. Mechanics:**

1. To determine surface tension by capillary rise.
2. To study the compound pendulum and estimate of value of "g"
3. To determine Elastic constant by spiral spring.
4. To determine modulus of rigidity by dynamic method and static method of Maxwell's Needle.

2. Waves, Oscillations and Optics:

5. To study the Lissajous figures by using C.R.O.
6. To determine the frequency of an A.C. supply.
7. To determine velocity of sound by Kundt's tube
8. To study the principle of sextant and measure the altitude of a given point by using it.
9. To determine wavelengths of sodium D lines by Newton's rings.
10. To determine wavelength of light by Fresnel's biprism.
11. To determine wavelength of light by diffraction grating.
12. To measure the rotation of the plane of polarization.
13. To determine the resolving power of a diffraction grating

3. Thermodynamics and Kinetic Theory of Gases:

14. To study the principle of thermocouple, thermal e.m.f. and temperature diagram.
15. To determine the mechanical equivalent of heat, "J" by Electrical Method (Calendar and Barnes Method).
16. To determine the temperature coefficient of a resistor

POLITICAL SCIENCE (ELECTIVE)-I

POLITICAL SCIENCE (ASSOCIATE DEGREE IN ARTS)

Syllabi and Courses of Reading

Paper I Principles of Political Science

Marks 100

PAPER I Principles of Political Science

- 1. Political Science:** Definition, Scope and Utility of Political Science and approaches to the Study of Political Science.
- 2. The State:** Definition and Elements; State and Government; State and Society; State and Associations.
- 3. Sovereignty:** Definition; Characteristics; Kinds. Monism versus Pluralism; Islamic Concept of Sovereignty.
- 4. Liberty:** (a) Nature; Kinds; Safeguards. Liberty and Equality, Liberty and Law.
(b) Definition, Meanings and Kinds of Rights. Fundamental Human Rights in Islam. Rights of Non-Muslims in an Islamic State.
- 5. Law:** Definition; Meaning; Kinds; Sources. Law and Morality. Islamic Concept of Law. Sources of Law in Islam. Importance of Ijtihad.
- 6. Organization of Modern State:**
(a) (1) Democracy: Nature; Attributes; reconditions.
(2) Islamic Concept of Democracy.
(3) Dictatorship; Kinds and Features.
(b) Unitary and Federal Systems.
(c) Parliamentary and Presidential Systems.
- 7. Structure of Government:** Executive. Legislature and Judiciary.
- 8. Political Participation:**
Elections and Electorate:
(a) Adult and Restricted Suffrage. Methods of Voting. Direct Legislation: Referendum, Initiative, Plebiscite and Recall. Qualifications of Voters and Candidates in an Islamic Policy. Role of an elected Representative.
(i) in a Modern Secular State.
(ii) In an Islamic state.
Role of Elected Representatives.
(b) Free Elections and its Pre-requisites. Direct and Indirect elections. Electoral Districts. Representation of Minorities. Proportional Representation. Functional Representation.
- 9. Political Dynamics:**
(a) Political Parties: Types, Functions and Roles.
(b) Interest Groups: Types, Role in Modern Policy, Methods of Political Action.
(c) Public Opinion: Definition. Development of the Concept. Public Opinion Polls. Methods of Measurements.

10. Theories Regarding the Nature of the State:

Idealist View. Utilitarian View. Socialism,
Communism, Fascism. Welfare Concept of State.
Comparison of Western and Islamic Concepts.

Books Recommended

Rodee, Anderson	Introduction to Political Science and Christol
Muhammad Asad	principles of State and Government in Islam.
Muhammad Sarwar	Muarif-e-Siyasiat (Urdu)
Farooq Akhtar Najib	Siyasat-o-Riasat (Urdu)

WWW.SU.EDU.PK

ASSOCIATE DEGREE IN ARTS / SCIENCE

Applied Psychology-I

Total Mark: 100

Appendix 'A'

(Outlines of Tests)

Paper-A:	Basic Concepts in Psychology (Written)	:	80 Marks
Paper-B:	Experiments in Psychology (Practical)	:	20 Marks

Appendix 'B'

(Syllabi and Courses of Reading)

Paper-A: Basic Concepts in Psychology 80 Marks

1. Introduction to Psychology:

Definition; Brief historical background and schools of Psychology; Careers & Specialization in Psychology.

2. Research Methods in Psychology:

Observation (Naturalistic and Field study); Case history. Experimental Method, Survey; Interview.

3. Statistical Analysis in Psychology:

Definition and Importance of Statistics in Psychology

Graphic Representation

Measures of Central Tendency: Mean Median and Mode.

Measures of variability: Standard deviation

Correlation: Pearson Product-moment & Rank Order.

4. Biological Basis of Behavior:

Brain Structure and Functions, Nervous System, Neurons, Parts of Nervous System; Endocrine glands.

5. Sensation and Perception:

Sensation: Characteristics of Sensation. Visual Sensation: Structure and Functions of the eye,

Auditory Sensation Structure and Functions of the ear

Perception: Factors in perception, types of perception, perceptual organization; perceptual problems illusions and Hallucinations.

6. Motivation:

Definition and Classification; Primary (Biogenic) Motives Secondary Motives; intrinsic and Extrinsic Motives; Intrinsic and Extrinsic Motivation; Theories of Motivation.

7. **Emotion:**
Definition; Components of Emotion; Theories of Emotion. Expression of Emotions and Psychological Well being.
8. **Learning and Conditioning:**
Definition and Types; Classical and instrumental conditioning; Learning through Imitation; Cognitive learning.
9. **Memory:**
Definition; Types of Memory; Models of Memory; Memory Processes: Retention, Recall, Recognition and Retrieval; Forgetting, Theories of Forgetting; Improving Memory; Mnemonics.
10. **Thinking:**
Definition; Types (Realistic Autistic thinking, Creativity, problem solving); Tools of Thinking; Imagery; Language; Concepts.
11. **Intelligence:**
Definition; Theories of Intelligence; Assessment of Intelligence
12. **Personality:**
Definition; Theories of Personality, Assessment of Personality

Paper-B: Experiments in Psychology (Practical)

20 Marks

Practical Note Book:	05 Marks
Practical Examination:	10 Marks
Viva Voce:	05 Marks

1. List of Experiments:

1. Muller-Lyer Illusion
2. Transfer of Training
3. Memory using Meaningful vs Nonsense Syllables
4. Size Constancy
5. Personality Assessment (Projective technique)
6. Retroactive Inhibition vs Proactive Inhibition
7. Reaction Time
8. Maze Learning

Recommended Books:

- Smith, E. E., Nolen-Hoeksema, S., Fredrickson, B. L. & Loftus G. R. (2003). *Introduction to Psychology*. USA: Thomson Learning.
- Passer, M. W. & Smith, R. E. (2007). *Psychology: The Science of Mind and Behavior*. New York, NY:McGraw-Hill.
- Myers, D. G. (2001). *Psychology* (6thed.). USA: Worth Publishers.
- Breakwell, G. M., Smith, J. A. & Wright, D. B. (2012). *Research Methods in Psychology*. London:SAGE Publications.
- Carlson N. R- (2005). *Foundations of Physiological Psychology*. (6thed.). India: Pearson Education.
- Blake, R. & Sekuler, R. (2006). *Perception* (5thed.). USA: McGraw-Hill.
- Domjan, M. (2005). *The Essentials of Conditioning and Learning*. (3rded.). Belmont, CA: Wadsworth.
- Wilson, B. A. (2009). *Memory Rehabilitation: Integrating Theory and Practice*. New York, NY: The Guilford Press.
- Eysenck, M. W. & Keane M. T. (2005). *Cognitive Psychology: A Student's Handbook*, New York, NY: Psychology Press.
- Pervin, L. A., Cervone, D. & John, O. P. (2005). *Personality: Theory and Research*. USA: John Wiley & Sons.
- Moore, D. S. (2000). *The Basic Practice of Statistics*. (2nded), USA: Freeman and Company.
- Feldman, R. S. (2000). *Essentials of Understanding Psychology*. (4^hed.). Boston:McGraw Hills Higher Education.
- Gray, P. (2002). *Psychology* (4thed). US A. Words Worth Publishers

(پنجابی)

ASSOCIATE DEGREE IN ARTS

PUNJABI ELECTIVE

SYLLABI PAPER (I)

Appendix "A"

Outline of Tests

نمبر 100

چٹواں پنجابی ادب

پرچہ 1

Appendix "B"

Syllabi & Courses of Reading

نمبر 100

(Paper-I)

پرچہ 1

تشریح

نمبر 40=2x20 = 3+3+14

تشریح + شاعراناں + نظم داسرناواں : نظم

نمبر 30=2x15=1+1+4+9

تشریح + سیاق و سباق + متن داحوالہ : نثر

نمبر 15

نثر یا نظم وچوں : تنقیدی سوالات:

پنڈا دا باڈ ڈجارا میرے ہاں دا گپ دھی سرداراں اہلم پچے دے اتھرو

دن دا بوٹا سورج تے دھرتی، قسم، سفردی رات، گل دی گل ناں اے مینوں! ایر نہیں مینڈا آگراں

پیلے دی حوزہ نہیں چوں دی چھی، گیت، جہلم دے پلے تے دو جی موت، پھلکھے بہار

روسکداں تے رو پیٹے ویلے دی یاد ہر ص

نمبر 15 = 9+6

شاعراں دی حیاتی تے شاعری

بابا فرید گنج شکر، شاہ حسین، سلطان باہو، بابھے شاہ، علی حیدر مٹائی، وارث شاہ، چیل سرست

مولوی لطف علی بہاؤ پوری، ہاشم شاہ، میاں محمد بخش، خواجہ غلام فرید، مولوی غلام رسول، عابد پوری، میاں ہدایت اللہ۔

Text Book (Prescribed)

نصابی کتاب (مجوزہ)

چٹواں پنجاب ادب

مرتبین

ڈاکٹر اسلم رانا (مدیر)

ڈاکٹر شہباز ملک۔ ڈاکٹر سید اختر جعفری

یونس اختر۔ نور احمد نقیب

تاج بک ڈپو اردو بازار لاہور

پبلشر

ASSOCIATE DEGREE IN ARTS

Social Work-I

Total Mark: 100

Appendix 'A'

(Outlines of Tests)

Paper-A:	Social Work-I (Written)	:	75 Marks
Paper-B:	Practical	:	25 Marks

Appendix 'B'

(Syllabi and Courses of Reading)

Paper-A: Social Work-I 75 Marks

I. Nature and Philosophy of Social Work:

- a) Definition and Philosophical base of Social Work
- b) Objectives of Social Work Practice
- c) Basic Principles of Social Work
- d) Scope of Social Work
- e) Professional and Voluntary Social Work

II. Islamic Concept of Social Work:

- a) Islamic Concept of Social Welfare and Social Work
- b) Worth and dignity of Individual
- c) Rights and responsibilities of individuals in Islamic Society
- d) Social Relationship in Islam i.e. Family, Neighborhood, Mosque

III. Methods of Social Work:

A. Primary Methods:

(i) Social Case Work:

- a) Definition and description of "Social Case Work"
- b) Elements/Components of Social Case Work (Person, Problem, Place Professional person and process)
- c) Worker client relationship in Social Case Work
- d) Principles of Social Case Work
- e) Phases/steps in Social Case Work
- f) Fields of application of Social Case Work practice
- g) Role of professional worker in Case Work Practice

(ii) Social Group Work:

- a) Definition and description of "Social Group Work"

- b) Types of Social Group (primary and secondary, formal and informal groups)
- c) Stages of Group Development
- d) Definition and description 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 application of Group Work practice
- i) Role of professional worker in Group Work Practice

(iii) Community Development:

- a) Definition and description of Community
- b) Definition of community organization and development
- c) Objectives of Community Development
- d) Phases/steps in Community Development, (study of the community, planning, implementation, monitoring and evaluation)
- e) Principles of Community Development
- f) Role of professional Social Worker in Community Development

B. Secondary Methods:

(i) Social Research:

- a) Definition and description of "Social Research"
- b) Types of Social Research
- c) Phases/steps in Social Research
- d) Tools of data collection (questionnaire, interviewing schedule, interview guide and observation).
- e) Importance of Social Research in Social Work

(ii) Social Welfare Administration:

- a) Definition and description of "Social Welfare Administration"
- b) Importance of Social Welfare Administration in Social Work

(iii) Social Action:

- a) Definition and description of "Social Action"
- b) Importance of Social Action in Social Welfare

(iv) Fields / Areas of Social Work:

- a) Medical Social Work

- b) Community Development (Urban / Rural)
- c) Child Welfare & Protection
- d) Women Welfare
- e) Probation & Parole
- f) Welfare and Rehabilitation of Special Groups
 - Physical Disability - Sensorial Disability
 - Mental Retardation -Socially disadvantaged (orphans, widow and destitute women and criminals)
- g) Youth Welfare
- h) Labor Welfare
- i) Population Welfare
- j) Juvenile Justice System Ordinance
- k) School Social Work
- l) Application of Social Safety Nets; Zakat, Bait ul Mal etc.
- m) Disaster Management
- (v) **Social Welfare Agencies:**
 - a) Definition and description of "Social Welfare Agency"
 - b) Types of Social Welfare Agencies (government, semi government, voluntary/NGOs)
 - c) Role of voluntary social welfare agencies in socioeconomic Development.

Recommended Books:

1. David W. Minar & Greer Scot (1969). The Concept of Community Reading with Interpretations. Aldine Publishing Company, Chicago, Pp-ixm 140
2. Don, Joanathan P & Tageem, Hidy, (2000). Globalization & NGO's. Green Wood Publishing Group, U.S.A
3. Douglas Tom (1976). Group Work Practice. Tavistocle Publications, Cambridge
4. Frieldlender, W.A. (1957). Concepts and Methods of Social Welfare. Practice Hall, New York
5. Hallahan (1991). Exceptional Children (4th ed.). Merrill Pub.Co., Columbus
6. Hepworth Deans H. and Lesser, Jo Ann. (1990). Direct Social Work Practice: Theory and Skills (3rd edition). Wodsworth, California
7. Herliegh B. Tracker (1967). Social Group Work, Principle & Practice. Association Press, New York
8. Khalid M. (2008). Social Work Theory and Practice with special reference to Pakistan (3rd edition). Kifayat Academy, Karachi.

9. Khalid, M. (2003). Introduction to Social Work Methods & Fields. Kifayat Academy, Karachi.
10. Lane E. Hold Croft (1984). The Rise And Fall of Community Development, 1950-65, in C.K. Excher & JM Staag(eds), Agricultural Development: in the Third World. Pp. 46-56.
11. Lois A. (2000) Fort Cowles: Social Work in the health Field A Care Perspective Haworth Press, Inc. London.
12. Mehbub-ul-Haq (2000). Human Development in South Asia. Human Development Centre, Islamabad.
13. Michel Oliver and Bob Sapey (1999). Social Work with Disable People (2nd Edition). Macmillan England.
14. Parsad, Kamta & Masdaan, Devendar, (2000). NGOs & Socio-Economic Development Opportunities. Deep & Deep Publication, India.
15. Polansky, Norman A. Social Work Research. Chicago University Press, Chicago.
16. Safdar Sarah (November 2008). Introduction to Social Work (2nd Edition).
17. Saif Printing Press, Peshawar.
18. Rafiq, Zari (2006). Community Development, Concepts and Practices, Peshawar. Saif Printing Press, Peshawar.
19. Rafiq, S. Zari. (2006). Research Method in Social Science. Aaraf Printing Press, Peshawar. Safdar Sarah (2007). "Social Work: Theory and its Implication. University of Peshawar.
20. Stroup, RH. Social Work: An Introduction to Field. Association of Social Work Education, New York.
21. World Bank (1975). Rural Development. World Banki, Washington.
22. Young, PaL (2001). Mastering Social Welfare (3rd edition). Macmillan Press limited, London.
23. Saeed, Gul Rukh, (2012). Taruf-a-Social Work (Part-I) Awais Publications, 2012

Paper-B: Practical

25 Marks

- a) Students will make observational visits to different Social Welfare agencies. They will be provided guidelines for observations before each visit.
- b) They will write reports about these visits. (6-8 visits)

SOCIOLOGY (ELECTIVE)
SOCIOLOGY (ASSOCIATE DEGREE IN ARTS)
(Syllabi and Courses of Reading)

Paper I: General Sociology: **Marks**
100

Paper I: General Sociology

Note: (All the topics should be covered in the context of Pakistani Society)

- (I) **Introduction:-**
- (a) Definition of Sociology
 - (b) Subject Matter
 - (c) Relationship of Sociology with other Social Sciences: Political Sciences, Psychology, Economics, History and Anthropology.
 - (d) Utility and application of Sociology.
- (II) **Social Groups:-**
- (a) Definition
 - (b) Types of Groups: Primary Groups, Secondary Groups, In Groups, Out Groups, Formal Groups and Informal Groups.
 - (c) Distinction between Social Groups and Social Categories.
 - (d) Other Related Concepts: Reference Groups, Locality Groups, Society.
- (III) **Social Interaction:-**
- (a) Definition
 - (b) Importance of Social Interaction.
 - (c) Processes of Social Interaction: Cooperation, Competition, Conflict, Assimilation, Accommodation and Acculturation.
- (IV) **Social Norms:-**
- (a) Definition
 - (b) Types of Social Norms: Folkways, Mores (Amar-o-Nehi), Laws.
 - (c) Other Related Concepts: Deviancy, Social Control, Social Sanctions, Taboos, Values and Beliefs.
- (V) **Status and Role:-**
- (a) Definition
 - (b) Types of Status and Role: Achieved and Ascribed.
 - (c) Related Concepts: Role Conflict and Role Playing.
- (VI) **Culture:-**
- (a) Definition
 - (b) Elements of Culture: Traits, Patterns, Complexes, Ethos.
 - (c) Types of Culture: Non-Material and Material, Ideal and Real.
 - (d) Cultural Uniformity and Cultural Variability.
 - (e) Other Related Concepts: Sub-Culture, Cultural Relativism and Ethnocentrism.
- (VII) **Socialization and Personality:-**
- (a) Definition
 - (b) Personality: Important factors in personality formation including Heredity, Socio-Cultural and Unique Experiences. Interplay of these factor.
 - (c) Socialization: As a Process in Role Taking and Role Playing.
 - (d) Concept of Self: Theories of George Mead and C.H. Cooley.
- (VIII) **Social Stratification:-**
- (a) Definition.
 - (b) Caste, Bradari and Class.
 - (c) Social Mobility and its Types and Factors Affecting Mobility.
- (IX) **Social Institutions:-**
- (a) Definition.
 - (b) Types of Social Institutions: Political, Economic, Religious, Education, Family and Kinship and Recreational.
 - (c) Interrelationship of Social Institutions.
- (X) **Social and Cultural Change:-**
- (a) Definition
 - (b) Factors of Socio-Cultural Change.
 - (c) Resistance to Socio-Cultural Change.
 - (d) Socio-Cultural Change in Pakistani Society.

Recommended Books:-

1. Baqai, M.S. Social Order in Pakistani Society, Karachi: National Book Foundation, 1975
2. Chaudhary, Iqbal M. "Umriyat", Lahore: Aziz Publishers, 1981
3. Horton Paul B. and Hundhester L. Sociology, Singapore: Mc Graw Hill Book Company, 1990
4. Koenig, Samuel Sociology – An Introduction to the Science of Society, New York: Barnes and Noble Books, Harper and Row Publishers, 1957.
5. Malik Abdul Hamid "Ibtidal Moasheryat" Lahore: Standard Book House, 1994.
6. Rao N. Shaukar Sociology, New Delhi: S. Hand and Company Ltd. 1990.

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ASSOCIATE DEGREE IN ARTS /SCIENCE

Statistics -I

Total Mark: 100

Appendix 'A'

(Outlines of Tests)

Paper-A:	Statistics -I (Written)	:	75 Marks
Paper-B:	Practical	:	25 Marks

Appendix 'B'

(Syllabi and Courses of Reading)

Paper-A: Statistics-I **75 Marks**

Candidates are required to attempt five questions in all, at least two from each section.

Section-I: Descriptive Statistics (Weight 2/10):

Meaning of Descriptive and Inferential Statistics. Population and Sample. Types of variables, Measurement Scales. Sources of Statistical data in Pakistan. Description of data by frequency tables and graphs. Stem and Leaf Display and Box plots. Measures of Central Tendency: A.M. H.M. G.M., Mode, Median, Quantiles. Properties of Mean with proofs. Weighted Arithmetic Mean. Empirical Relation between Mean, Median and Mode. Relative Merits and Demerits of various averages. Measures of Dispersion: Absolute and Relative Measures, Range. Semi Inter-Quartile Range, Mean Deviation, Variance, Standard Deviation. Coefficient of Variation, Coefficient of Mean Deviation, Coefficient of Quartile Deviation, Properties of Variance and Standard Deviation with proofs. Standardized variable, Moments, Moment Ratios, Sheppard's Correction, Kurtosis and Skewness.

Index Numbers (Weight 1/10):

Construction and application of wholesale price Index Numbers. Fixed and Chain base methods. Weighted Index Numbers (Laspeyre's, Paasche's Fisher's Ideal and Marshall-Edgeworth's Indices). Tests for the consistency of Index Numbers Construction of Consumer price Index Numbers. Sensitive price Indicator.

Time Series (Weight 1/10):

Time series. Components of a time series. Analysis of time series. Measurement of secular trend and seasonal variations by various methods. Deseasonalization of data.

Simple Regression and Correlation (Weight 1/10):

Logic of regression and correlation. Scatter diagram, simple linear regression model, least square estimators and their properties, standard error of estimate. Meaning and application of linear correlation coefficient. Properties of correlation co-efficient. Correlation coefficient for bi-variate

frequency distribution. Meaning, Derivation and Application of Rank correlation for distinct and tied ranks.

Section-II: Probability (Weight 2/10):

Random experiments, sample space and events. Counting techniques. Definitions and axioms of probability. Basic laws of probability. Independence of events. Bayes Theorem (proof not required) and its application.

Discrete Random Variable and Discrete Probability Distributions (Weight 2/10):

Random variable, Distribution function, discrete random variable. Probability distribution of a discrete random variable. Joint distribution of two discrete random variables, marginal and conditional distributions, mathematical expectation and its properties, mean, variance and moments. Concept of m.g.f. and its properties. Uniform, Bernoulli, Binomial, Hyper-geometric and Poisson distributions, mean, variance and shape of these distributions and their properties. Application of these distributions with examples from various fields. Multinomial distribution (only application).

Continuous Random Variable & Continuous Probability Distributions (Weight 1/10):

Continuous random variable. Probability distribution of a single continuous random variable, probability density function and distribution function. Mean, variance and moments of continuous random variable. Uniform and Normal distribution. Mean, variance and shape of these distributions and their properties. Application of these distributions. Normal approximation to the Binomial and Poisson distribution (just application). Fitting of Normal distribution by area method.

Note:- Separate practicals, each consisting of 25 marks will be held in third year and fourth year from the syllabus of these years respectively. Moreover, minimum 24 practicals according to the weightage of each topic may be covered.

Paper-B: Practical

25 Marks

There will be two questions from each section and candidates are required to attempt one from each section. The distribution of marks will be as under:

Each question of 9 marks	i.e. 9 + 9	18 Marks
Practical Note Book:		03 Marks
Viva Voce:		04 Marks

Recommended Books:

1. Clarke G. & Cooke D. (1998). A basic Course in Statistics, Arnold Publisher, London, 4th Edition.
2. Wonnacott T.H. and Wonnacott R.J. (1981). Introductory Statistics, John Willy & Sons, New York.
3. Chaudhry, S.M. & Kamal, S. (1999). Introduction to Statistical Theory Parts I & II, Ilmi Kitab Khana, Urdu Bazar, Lahore.
4. Beg, M.A. and Mirza, M.D. (1997). Statistics, Theory and Methods, Volumes I & II, Carven Book House, Kutechery Road, Lahore.
5. Chase W Bown F. (1997). General Statistics, 3rd Edition, John Willy & Sons, New York.
6. Graybill, Iyer & Burdick (1998). Applied Statistics, A first course in inference. Prentice Hall, New Jersey.
7. Moore D.S., McCabe G.R., (1997). Introduction to the Practice of Statistics, 3rd Edition, Will Freeman & Co., New York.
8. Blumen (1997), Elementary Statistics, 3rd Edition, McGraw Hill, New York.
9. Chaudhry, R.M. (1998). Polymer Modern Statistics, Polymers.

ASSOCIATE DEGREE IN SCIENCE

Zoology-I

Total Mark: 100

Appendix 'A'

(Outlines of Tests)

Paper-A:	Principles in Animal Life (Written)	:	35 Marks
Paper-B:	Invertebrates Diversity (Written) Classification, Phylogeny and Organization	:	35 Marks
Paper-C:	Practical-I	:	15 Marks
Paper-D:	Practical-II	:	15 Marks

Appendix 'B'

(Syllabi and Courses of Reading)

Paper-A: Principles in Animal Life **35 Marks**

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 Classification of Animals; The Scientific Method.

2. The Chemical Bases of Animal Life:

Atoms and Elements: Building Blocks of All Matter, Compounds and 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.

3. 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 Ribosome's, Endoplasmic Reticulum, Golgi Apparatus, Lysosomes, Mitochondria, Cytoskeleton, Cilia 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, A Muscle Tissue and Nervous Tissue to perform various functions. Structural integrations for functions in Organs and Organ Systems.

4. 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.

5. 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.

6. Cell Division:

Mitosis, Cytokinesis, and the Cell Cycle: An Overview, Control of the Cell Cycle Meiosis; The Basis of Sexual Reproduction; Gamete Formation

7. Inheritance Patterns:

The Birth of Modern Genetics ;Mendelian Inheritance Patterns ; Other Inheritance Patterns, Environmental Effects and Gene Expression.

8. Chromosomes and Gene Linkage:

Eukaryotic Chromosomes, Linkage Relationships, Changes in Chromosome Number and Structure.

9. 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.

10. Ecology I : Individuals and Populations:

Animals and Their Abiotic Environment; Populations; Interspecific Interactions.

11. Ecology II : Communities and Ecosystems:

Community Structure and Diversity; Ecosystems; Ecosystems of the Earth; Ecological Problems, Human Population Growth, Pollution, Resource Depletion and Biodiversity.

12. Animal Behavior:

Four Approaches to Animal Behavior, Proximate and Ultimate Causes; Aotin- opomorphism; Development of Behavior, Learning, Control of Behaviour, Communication; Behavioral Ecology; Social Behavior.

13. Evolution : A Historical Perspective:

Pre-Darwinian Theories of Change; Lamarck: An Early 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.

14. Evolution and Gene Frequencies:

The Modern Synthesis: A Closer Look; The Hardy - Weinberg Theorem Evolutionary Mechanisms; Population Size, Genetic Drift, Neutral Selection, Gene Flow, Mutation, and Balanced Polymorphism, Species and Speciation : Rates of Evolution; Molecular Evolution Mosaic Evolution.

Paper-B: Invertebrates Diversity (Classification, Phylogeny and Organization) 35 Marks

1. Introduction:

Classification of Organisms; Evolutionary Relationships and Tree Diagrams; Patterns of Organization.

2. Animal-Like Protists : The Protozoa:

Evolutionary Perspective ; Life within a Single Plasma Membrane ; Symbiotic Life-styles. Protozoan Taxonomy; (up to phyla, subphyla and super classes, wherever applicable). Pseudopodia and Amoeboid Locomotion; Cilia and Other Pellicular Structures; Nutrition; Genetic Control and Reproduction; Symbiotic Ciliates; Further Phylogenetic Considerations.

3. Multicellular and Tissue Levels of Organization:

Evolutionary Perspective :Orgins of Multicellularity; Animal Origins. Phylum Porifera; Cell Types, Body Wall, and Skeletons; Water Currents and Body Forms; Maintenance Functions, Reproduction. Phylum Cnidaria (Coelenterate). The Body Wall and Nematocysts: Alternation of Generations; Maintenance Functions ; Reproduction and Classification up to class. Phylum Ctenophore; Further Phylogenetic Considerations.

4. The Triploblastic, Acoelomate Body Plan:

Evolutionary Perspective; Phylum Platyhelminthes; Classification up to class; The Free-Living Flatworms and the Tapeworms, Phylum Numerate; Phylum Gastrotrich; Further Phylogenetic Considerations.

5. The Pseudocoelomate Body Plan : Ascheiminth:

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.

6. Mollusean Success:

Evolutionary Perspective; Relationship to other Animals ; Origin of the Coelom ; Mollusean

Characteristics, Classification up to class. The Characteristics of Shell and Associated Structures, Feeding, Digestion, Gas Exchange, Locomotion, Reproduction and Development, other Maintenance Functions and Diversity in Gastropods, Bivalves and Cephalopods: Further Phylogenetic Considerations.

7. Anelida: The Metameric Body Form:

Evolutionary Perspective; Relationship to other Animals, Metamerism and Tagmatization, Classification up to class. External Structure and Locomotion, Feeding and the Digestive System, Gas Exchange and Circulation, Nervous and Sensory Functions, Excretion, Regeneration, Reproduction and Development, in Polychaeta, Oligochaeta and Hirudinea, Further Phylogenetic Considerations.

8. 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.

9. 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, Insects Behavior, Insects and Humans; Further Phylogenetic Considerations.

10. The Echinoderms:

Evolutionary Perspective; Relationships to other Animals; Echinoderm Characteristics; Classification up to class. Maintenance Functions, Regeneration, Reproduction, and Development in Asterozoa, Ophiurozoa, Echinozoa, Holothurozoa and Crinozoa; Further Phylogenetic Considerations; Some Lesser-Known Invertebrates; The Lophophorates, Entoprocts, Cycliophores, and Chaetognaths.

Recommended Books:

Principal Reference Book:

1. Miller, A.S. and Harley, J.B.; 1999 & 2002. ZOOLOGY, 4th & 5th Edition (International). Singapore: McGraw Hill.

Additional 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 INTERVEBRATES, 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 Sixth Edition, Menlo Park, California; Benjamin Cummings Publishing Company, Inc.

Paper-C: Practical-I

15 Marks

1. Tests for different carbohydrates, proteins and lipids.

Note for 1. Emphasis on the concept that tests materials have been ultimately obtained from living organisms and constituted their body.

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.

Note for 2. Prepared microscopic and or projection slides and or CD ROM computer projections must be used.

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.

Note for 5-6. Prepared microscopic and or projection slides and or CD ROM computer projections must be used.

7. Problem based study of Mendelian ratio in animals.
8. Multiple alleles study in blood groups.
9. Survey study of a genetic factor in population and its frequency.
10. Study of chromosomal number and structural change in Drosophila.
11. Study of karyotypes of Drosophila, Mosquito.
12. Study of cytochemical destruction of DNA in protozoa and avian blood cell.
13. Study of stages in the development of an Echinoderm.
14. Study of early stages in the development of a frog, chick and a mammal.

Note for 10-14. Prepared slides and preserved specimen and or projection slides and or CD ROM computer projections may be used.

15. Study to demonstrate nervous or endocrine basis of behaviour (conditioned reflex or aggression or parental behaviour).
16. Study to demonstrate social behaviour (honey bee, monkey group in a zoo).
17. Ecological notes on animals of a few model habitats.

18. Field observation and report writing on animals in their ecosystem (a terrestrial and anaquatic ecosystem study).

Paper-D: Practical-II

15 Marks

1. Study of *Euglena*, *Amoeba*, *Entamoeba*, *Plasmodium*, *Trypanosoma*, *Paramecium* as representative of animal like protists.
2. Study of sponges and their various body forms.
3. Study of principal representative classes of phylum Coelentrata.
4. Study of principal representative classes of phylum Platyhelminthes.
5. Study of representative of phylum Rotifera, phylum Nematoda.
6. Study of principal representative classes of phylum Mollusca.
7. Study of principal representative classes of phylum Annelida.
8. Study of principal representative classes of phylum Arthropoda.
9. Study of a representative of classes of phylum Echinodermata

Recommended Books:

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

ASSOCIATE DEGREE IN ARTS

نصاب (اُردو اختیاری) - ۱

نصاب کا خاکہ

پرچہ - ۱:

- | | | |
|---------|--|---|
| ۳۰ نمبر | متن کے حوالے سے نثری اقتباسات کی تشریحات | ۱ |
| ۳۰ نمبر | متن کے حوالے سے اشعار کی تشریحات | ۲ |
| ۲۰ نمبر | شعری یا نثری فن پاروں کے بارے میں تنقیدی سوال | ۳ |
| ۲۰ نمبر | شعرا و ادبا کی سوانح اور خدمات کے حوالے سے تنقیدی سوال | ۴ |

کل نمبر پرچہ الف ۱۰۰

نصاب کی تفصیل

پرچہ: اردو - ۱

حصہ نثر

افسانوی نثر:

- | | | |
|---|---|----------------------------|
| میرامن دہلوی "باغ و بہار" سے اقتباس (قصے کے آغاز سے..... بے خبر ہو گئے اور میں بھی بے ہوش ہو گیا) | ۱ | سیر پہلے درویش کی |
| ڈپٹی نذیر احمد "توبہ الصوح" سے اقتباس (وہ گھر سے نکل کر بے تکلف..... کلیم سے اس کا حسب نسب پوچھا) | ۲ | کلیم اور مرزا ظاہر دار بیگ |
| "امراؤ جان ادا سے اقتباس | ۳ | آپ بیتی کہوں کہ جگ بیتی |
| | ۴ | ازدواج محبت |
| | ۵ | ٹوبہ بیک سنگھ |
| | ۶ | الحمد اللہ |
| | | سجاد حیدر یلدرم |
| | | سعادت حسن منٹو |
| | | احمد ندیم قاسمی |

انتظار حسین

۷۔ کایا کلب

غیر افسانوی نثر

- ۸۔ سیلِ زمانہ سرسید احمد خاں
- ۹۔ مکتوبات بنام میر مہدی مجروح اسد اللہ خان غالب
- ۱۰۔ انسان کسی حال میں خوش نہیں رہتا محمد حسین آزاد
- ۱۱۔ شعر میں کیا کیا خوبیاں ہونی چاہئیں الطاف حسین حالی
- ۱۲۔ چند راوی قدرت اللہ شہاب
- ۱۳۔ لڑی میں پروئے ہوئے منظر رضا علی عابدی
- ۱۴۔ کندن رشید احمد صدیقی
- ۱۵۔ چوری سے یاری تک ڈاکٹر وزیر آغا
- ”غالب کے خطوط“ مرتبہ خلیق انجم (خط نمبر ۱ تا ۱۳)
- ”غیر تک خیال“ سے اقتباس
- ”مقدمہ شعر و شاعری“ سے اقتباس
- ”شہاب نامہ“ سے اقتباس
- ”جرنیل سڑک“ سے اقتباس
- ”سج ہائے گراں مایہ“ سے اقتباس
- حصہ شعر

غزلیات:

- ۱۔ ولی دکن وہ صنم جب سے بسا دیدہ حیران میں آ
- ۲۔ میر تقی میر اب جدائی نہ کر خدا سوں ڈر جس سر کو غرور آج ہے یاں تاجوری کا جیتے جی کوچہ دلدار سے جایا نہ گیا جگر کو داغ میں مانند لالہ کیا کرتا سر شمع ساں کٹائیے پردم نہ ماریے یہ نہ تھی ہماری قسمت کہ وصال یار ہوتا دردمنت کش دوانہ ہوا
- ۳۔ حیدر علی آتش
- ۴۔ اسد اللہ خان غالب پھرے راہ سے وہ یہاں آتے آتے خاطر سے لحاظ سے میں مان تو گیا
- ۵۔ داغ دہلوی ہزار خوف ہو لیکن زباں ہو دل کی رفیق اثر کرے نہ کرے سن تو لے مری فریاد بہت دل کو کشادہ کر لیا کیا بے قراری سی بے قراری ہے
- ۶۔ علامہ اقبال
- ۷۔ جون ایلیا

قصیدہ:

- محمد رفیع سودا در منقبت حضرت علی کرم اللہ وجہہ

اٹھ گیا بہمن ودے کا چمنستاں سے عمل (پہلے ۱۶ اشعار)

مثنوی:

داستان بے قراری بد منیر کی بے نظیر کے فراق میں

میر حسن

کوئی دن نہ آیا جو وہ رشک مہ (سے ۲۵ اشعار)

مرثیہ:

لاشوں میں لائیں یہ بیاں زہب کو تھام کر (سے ۵ بند)

میر انیس

مسدس:

مسدس مدوجز اسلام (وہ نبیوں میں رحمت لقب پانے والا، سے اگلے ۶ بند)

الطاف حسین حالی

نظمیں:

ہنس نامہ

نظیر اکبر آبادی

قطعات:

ترے سینے میں دم ہے دل نہیں ہے

علامہ اقبال

محبت کا جنوں باقی نہیں ہے

جو انوں کو مری آہ سحر دے

جمال عشق و مستی نے نوازی

تجہائی

نظم معری:

فیض احمد فیض

نظم آزاد:

زندگی سے درتے ہو

ن۔م۔راشد

پھولوں کی پلٹن

مجید امجد

ASSOCIATE DEGREE IN SCIENCE

A-Course of Mathematics

Paper-I

NOTE: Each section having four questions, please attempt two questions from each section.

SECTION-I (4/12: 17,17,17,17)

Theory of limit and continuity. Solution of Inequalities. Derivatives and its application to business, economics and physics etc. Differentials. Related rates. Higher order derivatives. Leibnitz's theorem. Limits and continuity of functions of two variables. Partial differentiation and its geometrical meaning for functions of two variables. Euler's theorem. Increments and differentials. Chain Rule. Extrema by 2nd order derivative test and by Lagrange multiplier method. General theorems and indeterminate forms. L' Hospital rule and its applications. Increasing and decreasing functions. Intermediate value theorem and its immediate consequence (only statements)

SECTION-II (4/12: 16,16,16,16)

Translation and rotation of axes. Second degree equation with reference to conic section. Properties of conics. Tangents and normals (Cartesian Coordinates), Polar equations of conics. Sketching of Curves in polar coordinates, Tangents and normals (Polar Coordinates). Parametric representation of curves. Pedal Equations. Vector spaces and sub spaces. Linearly dependent and independent vectors. Bases and dimension. Linear transformations and matrix of linear transformation. (relevant theorems of bases and linear transformation without proofs) .

SECTION-III (4/12: 17,17,17,17)

Sequences. Bounded Sequences. Cauchy sequences. Convergence and divergence of sequences. Cauchy's theorem. Nth-term test, comparison test, ratio test, root test and integral test for convergence and divergence of infinite series. Convergence and divergence of alternating series. Power series. Complex numbers and their properties. De Moivre's theorem and its applications. Circular, logarithmic and hyperbolic functions. Separation into real and imaginary parts.

Recommended Books

1. Calculus by H.Anton. John Wiley and Sons New York. (Latest Edition)
2. Calculus By C.H Edwards and D.E. Penney. Prentice Hall. Inc. (Latest Edition)
3. Calculus By S.I. Grossman. Academic Press Inc (London) Ltd. (Latest Edition)
4. Calculus and Analytic Geometry by S.M. Yousaf. Illmi Kitab Khana. Urdu Bazar Lahore 5th Edition 1997
5. Calculus and analytic geometry by G.B Thomas and R.I. Finney., Addison-Wesley Publishing Company. Lahore. (Latest Edition)
6. Elementary Linear Algebra by C.H. Edwards. Jr and Davide penney. Prentice Hall international Inc. (1988)
7. Mathematical Techniques by K. H. Dar. Irfan-ul-Haq and M.A. Jajja. The Carvan Book House. Kachehry Road Lahore. 9th Edition 1997
8. Mathematics Methods by S.M. Yousaf. Illmi Kitab Khana. Urdu Bazar Lahore. (2000)
9. Set Theory and Logic by Stoll, Robert R.S. Chand & Co. New Delhi
10. Number Theory by Dr. Manzoor Hussain. The Carvan Book House. Kachehry Road, Lahore.
11. Elementary Linear Algebra (sixth edition) by Howard Anton And Chris Rorres. John Willey & Sons. INC. 10th Edition 2010.

ASSOCIATE DEGREE IN SCIENCE

B-Course of Mathematics

Paper –I

NOTE: Each section having four questions, please attempt two questions from each section.

SECTION-I (4/12: 17,17,17,17)

Vectors in three-dimensions. Scalar and vector products with applications. Scalar and vector triple products. Differentiation and integration of vector functions. Gradient, divergence and curl. Differential operators. Application to vector analysis. Composition and resolution of co-planar forces. (λ, μ) Theorem, Lamy's Theorem, Varignon's Theorem, Moments, couples and conditions of equilibrium under the action of co-planar forces.

SECTION-II (4/12: 16,16,16,16)

Types of forces, Direction of forces of constraints, Equilibrium of three co-planer forces and related problem. Center of gravity. Symmetry and Center of mass, Center of mass of various bodies. Frictional forces. Laws of friction. Equilibrium of bodies on rough surfaces. Principle of virtual work and related problems.

SECTION-III (4/12: 17,17,17,17)

Kinematics of a particle in Cartesian and polar co-ordinates. Laws of mechanics. Linear and angular velocity. Relative velocity. Rectilinear motion with uniform and variable acceleration. Simple harmonic motion. Projectile motion. Motion along horizontal and vertical circles. Orbital motion. Elliptic orbit under a central force, Polar form of the orbit, Apse and Apsidal Distance, Planetary motion and Kepler's laws.

Recommended Books.

1. Theory of Differential Equations of Dennis G.Zill. Books Thomson Learning Academic Resource Center. USA. 8th Edition 2013
2. Mathematical Techniques by K.H. Dar, Irfan-ul-Haq and M.A. Jajja. The Carvan Books House. Kachehry Road, Lahore. 9th Edition 1997
3. Mathematics Methods by S.M. Yousaf. Illmi Kitab Khana. Urdu Bazar, Lahore. 1998
4. Numerical Analysis by R.L. Burden and J.D. Faires. PES-Kent Publishing Company. Bostan. USA 9th Edition 2011
5. Operations Research by H.A. Taha. Prentice-hall Inc. Englewood. Cliffs USA. 4th Edition 2011
6. Mathematical Statistics. By Dr. J.E.Freund. Prentice-hall Inc. Englewood. Cliffs USA. 7th Edition 2007
7. Vector and Tensor Methods, by Chorlton, Ellis Horwood Publishers. 1976
8. Elementary Vector Analysis. By Dr. Munawar Hussain. S.M. Hafeez. M.A. Saeed and Ch. Bashir Ahmed. The Caravan Book House, Kachhry Road, Lahore.
9. A Text Book by Dynamics by Chorlton, Van Nostrand Company Ltd. London. 1967
10. Mechanics by O.K. Ghori. West Pakistan Publishing Company, Lahore. 1971

ASSOCIATE DEGREE IN ARTS / SCIENCE

General Mathematics

Paper –I

NOTE: Each section having four questions, please attempt two questions from each section.

SECTION-I (4/12: 17,17,17,17)

Theory of limit and continuity. Solution of inequalities. Derivatives and its application to business, economics and physics etc. Differentials. Related rates. Newton-Raphson formula. Higher order derivatives. Leibnitz's theorem. Limits and continuity of functions of two variables. Partial differentiation and its geometrical meaning for functions of two variables. Euler's theorem. Increments and differentials. Chain Rule. General theorems (without proofs) and indeterminate forms. L' Hospital rule of functions. Increasing and decreasing functions.

SECTION-II (4/12: 16,16,16,16)

Translation and rotation of axes. Second degree equation with reference to conic section. Properties of conics. Polar equations of conics. Tangents and normals. Parametric representation of curves. Pedal Equations. Asymptotes. Extrema and its application. Singular points. Curvature. Evolutes and envelopes.

SECTION-III (4/12: 17,17,17,17)

Antiderivatives and indefinite integrals. Methods of integration. Definite integral as limit of sum. Fundamental theorem. Properties. Improper integrals. Reduction formulas. Double and Triple integral (Simple cases). Area between curves. Length of arc. Intrinsic equations. Numerical integration (rectangular, trapezoidal and 1/3 Simpson's rules). Co-ordinates in three dimension. Rectangular, cylindrical and spherical co-ordinates. Equations of plan, straight line, sphere, cylinder, cone, ellipsoid, hyperboloid and paraboloid. Longitude and latitudes. Spherical triangle and direction of Qibla.

Note: A student has to take B-course of Mathematics (both I & II- papers) as an additional course to be eligible to do M.Sc. mathematics as a regular or a private candidate.

Recommended Books

1. Calculus by H. Anton. John Wiley and Sons New York. (Latest Edition)
2. Calculus By C.H Edwards and D.E. Penney. Prentice Hall. Inc. (Latest Edition)
3. Calculus By S.I. Grossman. Academic Press Inc (London) Ltd. (Latest Edition)
4. Calculus and Analytic Geometry by S.M. Yousaf. Illmi Kitab Khana. Urdu Bazar Lahore 1998
5. Calculus and analytic geometry by G.B Thomas and R.I. Finney., Adison-Wesley Publishing Company. (Latest Edition)
6. Elementary Linear Algebra by C.H. Edwards. Jr and Davide penney. Prentic Hall international Inc. 1988
7. Mathematical Techniques by K. H. Dar. Irfan-ul-Haq and M.A. Jajja. The Carvan Book House. Kachehry Road Lahore. 9th Edition 1997
8. Mathematics Methods by S.M. Yousaf. Illmi Kitab Khana. Urdu Bazar Lahore. 2000
9. Set Theory and Logic by Stoll. Robert R.S chand & Co. New Delhi.
10. No Theory by Dr. Manzoor Hussai. The Carvan Book House, Kachachry, Lahore
11. Elementary Liner Algebra by Howard Anton and Chris Rorres John Willey & Sons Inc 10th Edition 2010