1st Semester
Course Name: BusinessMathematics (Multi disciplinary)
Credit: 3
(Internal Assessment 30 Marks + End Term Exam. 45 Marks)Total Marks: 75

UnitI:IntroductiontoBusinessMathematics

Linear, Quadratic, and system of Simultaneous linear equations - Application of concept of equations tobusiness and commerce, Time and work: Simple cases, Profit, Loss and discount (business applications),Shares- Concept of share, face value, Market value, equity shares, preferential shares, dividend, bonusshares, Ratio and proportion- Finding the missing term of the proportion, merging of two ratios in one,Conceptofmixtureanditsexamples

Unit2:Interest&Annuities

Concept of Simple Interest & Compound Interest (solution of related problem), PV and FV of singleprincipal amount, Annuity –Types of annuities: ordinary, due, deferred, continues, perpetual their futureandpresentvaluesusingdifferenttypesofratesofinterest.Depreciationof Assets. Definitionofsinkingfund(Generalannuitiestobe excluded).

Unit 3: Matrices and Determinants:Algebra of Matrices, Matrix operation- Business Application,Determinantofasquarematrix.
Evaluationdeterminantoforderthree(Propertiesofdeterminantstobeexcluded), Inverse of a matrix, Solution of system of linear equations (having unique solution andinvolvingnotmorethanthreevariables)usingCramer'sRule.

Unit4:DifferentialCalculus:Conceptoflimitandcontinuityofafunction(simplefunctionsonly),Concep tofdifferentiation,Rulesofdifferentiation,Derivativesofe^x,a^x.,logx(onlyresult).Differentiationofsimpl ealgebraicfunctions,conceptof partialdifferentiation(simplebusinessproblem),Maxima and minima involving second order derivative (relating to cost, revenue and profit), Concept ofMarginal Analysis- The common marginal concept in economics and their application in Business. ProfitMaximizationunderMonopoly.EconomicOrderQuantity.

Unit 5:Integration- Preliminary idea,definite integrals(simple polynomialfunctions), determination ofareausingdefinite integrals, application ofintegralcalculustoMarginalanalysis

Unit 6: Linear Programming:Linear Programming: Sketching of graphs of (i) Linear equation ax + by +c=0and(ii)Linearinequalities
b)Formulationoflinearprogrammingproblem(LPP).GraphicalsolutiontoLPP

SuggestedReadings:

1) SinghJ.K.BusinessMathematics. Himalaya PublishingHouse.

2) Ayres,FrankJr.Schaum'sOutlinesSeries:TheoryandProblemsofMathematicsofFinanceMcGrawHil lEducation.

3) Aggarwal,R.S.,QuantitativeAptitude, S.Chand.

4) TextBookofBusinessMathematics,PadmalochanHazarika,S.Chand.

1st Semester

Course Name: Environmental Studies (VAC)

Credit: 2

(Internal Assessment 20 Marks + End Term Exam. 30 Marks) =Total Marks: 50

(For detail syllabus referto the common course uploaded in the Gauhati University website)

1st Semester

Course Name: MIL-1/English (Alt-1) (AEC)

Credit: 2

(Internal Assessment 20 Marks + End Term Exam. 30 Marks)=Total Marks: 50

(For detail syllabus refer to the common course uploaded in the Gauhati University website)

1st Semester

Course Name: InformationTechnologyinBusiness (SEC)

Credit: 3

(Internal Assessment 24 Marks + Practical + 18 Marks +End Term Exam. 33 Marks) = Total Marks: 100

Unit1:-FundamentalsofComputersandInformationTechnology

Definition of a computer system, hardware, software, I/O devices, storage devices, other peripheraldevices,CPUanditsfunctions,communicationamongvariousparts of acomputersystem,memory measurement units, Data Information and knowledge, role of ITin information generation,managementanddecisionmaking.

Unit2:-Introduction tothesystemsoftware

Definition,differenttypesofsystemsoftware,differentfunctions,introductiontoresourcemanagement, memory management, I/O management, process management, deadlock, deadlockavoidance andprevention.

Unit3:-Introductiontothecomputernetworks

Fundamentals of computer networks and the internet, brief introduction to the OSI and the TCP/IPmodel,differentlayersandprotocols,routing,differentdevicesindifferentlayers,networktopologies,introduction to wireless technologies,security in computer networks, computer virus,the worldwide web,searchenginesandtheirbusinessprospective.

Unit 4:-IntroductiontoMS-Office2010/11

DifferentMS-Officetools,workingwithMS-word,creating,editing,formattingandprintingdocuments, working with MS- Excel, data sorting, formulas and functions, graph creation, creatingsimpleandanimatedpresentationswithMS-PowerPoint,usingMS-Accesstocreatesmalldatabasesandthe respectiveformstoenter,edit,anddelete data.

Unit5:-Databasefundamentals

Definition,table,field,record,data types,differenttypesof key,metadata,entity,attributes,different types of relationships, database management system, advantages of DBMS approach,3-layred database architecture,data independence,differentdatabaselanguages,structured querylanguage(SQL).

Unit6:- Introductiontowebresourcecreation

IntroductiontoHypertextmarkuplanguage(HTML),Extensiblehypertextmarkuplanguage(XHTML), Extensible markup language (XML), Extensible business reporting language (XBRL).Client side and server side programming, fundamentals of creating dynamic, interactive web pages:An introductiontoActive ServerPagestechnology,introductiontoVBscript.

Unit7:- IntroductiontoManagementInformationSystem

TransactionprocessingSystem,DecisionsupportSystem,Expert Systems.

Practical:

1. Introductiontodifferent hardwarecomponentsandtheirfunctions.
2. MS-WORD,MS-EXCEL,MS-POWERPOINT&MS-ACCESS
3. Webresourcecreation.

BooksRecommended:

- IntroductiontoInformationTechnology- ITLEducationSolutionsLtd., PearsonEducation.
- InformationTechnology-Dr.SushilaMadan,Taxman

ABILITY ENHANCEMENT COURSES (AEC)

Subject: Assamese
Semester: First
Course Name: যোগাযোগমূলক অসমীয়া—১
Common Course
Ability Enhancement Course
Existing Base Syllabus: UG CBCS Syllabus
Course Level: 100-199

Unit No.	Unit Content	No. of Classes	Marks
১	ভাষাজ্ঞান : উচ্চাৰণ, আখৰ জোঁটনি, যতিচিহ্ন ৰ জ্ঞান,প্ৰত্যয়-বিভক্তিৰ ব্যৱহাৰ, কথন কৌশল	১২	২০
২	কৰ্মক্ষেত্ৰৰ অসমীয়া : আবেদন, বিজ্ঞাপন, প্ৰতিবেদন লিখন, বাতৰি লেখন, নিবিদা লেখন দক্ষতা	১২	২০

পঠন-সামগ্ৰীঃ

নিকা অসমীয়া ভাষা : মহেশ্বৰ নেওগ
অসমীয়া ব্যাকৰণ প্ৰৱেশ : গোলোকচন্দ্ৰ গোস্বামী
অসমীয়া ৰচনা সংকলন : তুলতুল বৰুৱা (সম্পা.)
ধ্বনিবিজ্ঞানৰ ভূমিকা : গোলোকচন্দ্ৰ গোস্বামী
যোগাযোগ কলা : নীৰাজনা মহন্ত বেজবৰা
অসমীয়া আখৰ জোঁটনিৰ কথা : শিৱনাথ বৰ্মন
অসমীয়া আখৰ জোঁটনি আৰু লিপ্যন্তৰ পদ্ধতি : গুৱাহাটী বিশ্ববিদ্যালয়
অসমীয়া ভাষা-সাহিত্য চৰ্চাকাৰীসকলৰ হাতপুথি : ৰমেশ পাঠক
ব্যৱহাৰিক অসমীয়া ব্যাকৰণ : উপেন ৰাভা হাকাচাম
বিজ্ঞানলেখকৰ হাতপুথি : দীনেশ চন্দ্ৰ গোস্বামী

Graduate Attributes:জ্ঞান-আধাৰ, ব্যৱহাৰিক উপযোগিতা, জীৱনজোৰা বিদ্যা
Course Objective:এই কাকতখনৰ উদ্দেশ্য অসমীয়া ভাষাৰ ব্যৱহাৰিক জ্ঞানৰ আভাস দিয়া।
Learning Outcome:এই কাকতখন অধ্যয়ন কৰিলে ছাত্ৰ-ছাত্ৰীসকলে ভাষাটোৰ ব্যৱহাৰিক জ্ঞান আয়ত্ত কৰাৰ লগতে কৰ্মক্ষেত্ৰত অসমীয়া ভাষা প্ৰয়োগৰ দক্ষতা আহৰণ কৰিব পাৰিব।
Theory Credit: 1
Practical Credit: 1
No. of required classes: 24
No. of contact classes: 20
No. of non-contact classes: 4

AEC (Ability Enhancement Course)

Alternative English I (In lieu of MIL)

Semester 1

Credits 2

(30 External +20 Internal = 50 Marks)

Course Outcome:

This paper would seek to acquaint students with the literary practices and trends. It presents a sampling of poems and stories so as to enable students to engage with possibilities of reading and approaching English literature.

Poetry: 30 Marks

W. B. Yeats: No Second Troy

Sarojini Naidu: The Palanquin Bearers

Sujata Bhatt: So Many Oaks

Margaret Atwood: This was a Photograph of Me

Stories: 20 Marks

Mahim Bora: Audition

Bryan MacMahon: The Ring

VALUE ADDED COURSES (VAC)

4 Environmental Conservation-promises and actions: A.Ghosh
5 River Water sharing-Transboundary conflict and cooperation in India: N.S.Mohan;

i. Graduate Attributes
   I. Course Objective:
      - The course objective is to develop an understanding of the basic concepts of environmental significances of natural resources. It also aims to make the students understand about the risks factors associated with natural resource extraction and uses.
   II. Learning Outcome:
      - Natural resources represent a potentially transformational opportunity to support development, but they are ultimately finite. So, by this course attempts have been made to teach the students about the complex and interwoven aspects of natural resources and to make the learners committed to harnessing the transformational impacts of the natural resource with sustainability aspects.

j. Theory Credit: **2**
k. No. of Required Classes: **60**
l. No. of Contact Classes: **45**
m. No. of Non-Contact Classes:**15**
n. Particulars of Course Designer :

Environmental Studies

Total marks: 50

Course level:100-199

No. of Credits: 2 **No. of hours: 30**

Unit1: Introduction to Environmental Studies **5 lectures**

- Multidisciplinary nature of environmental studies;
- Scope and importance;
- Basic concepts: Renewable resources, no renewable resources, Common Property resources, Tragedy of commons, Climate change, global warming
- Concept of sustainable development

Unit 2: Ecosystems **10 lectures**

- What is an ecosystem? Difference between ecology and ecosystem. Structure and function of ecosystem: Energy flow in an ecosystem: food chains, food web and

ecological succession.

- Case studies on any one of the following
  a) Forest ecosystem
  b) Grassland ecosystem
  c) Aquatic ecosystems (ponds, streams, lakes, rivers)
  d) Mountain ecosystem

Unit 5: Environmental Pollution and laws **15 lectures**

- Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution
- Solid waste management: Control measures of urban and industrial waste.

- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements, policies and treaties

Suggested Readings:

1. Bharucha Erach : Text book on Environmental Studies, UGC, New Delhi
2. Carson, R 2002. Silent Spring. Houghton Mifflin Harcourt.
3. De A.K.: Environmental Chemistry, Wiley Eastern Ltd.
4. Kaushik Anubha and C.P.Kaushik : Perspective in Environmental Studies, New Age International
5. Rajagopalan, R. (2018). Environmental Studies. (3rd Edition) Oxford University Press
6. S. C. Santra (2011): Environmental Science, New Central Book Agency

Graduate Attributes

I. Course Objective:
The course objective is to develop an understanding of the basic concepts of environmental studies. This course will help to know the environment around us. It also gives an idea of various laws to protect environment.

II. Learning Outcome:
- After going through this course students can visualize the importance of environment for human mankind. This course will help to make an understanding of the various concepts which are frequently used by us. This course also enable students to know the problems of a particular environmental event through case studies and also help them to go through the various available laws that can minimize the environmental problems.

Theory Credit: **2**
No. of Required Classes: **30**
No. of Contact Classes: **30**

No. of Non-Contact Classes:**0**