Gauhati University

Syllabus for FYUGP, Skill Courses (SEC): 2023-24

List of Skill Coursesfor First Semester-

- <u>Colleges/Departments can select any curses from the list, asper their Faculty/Facility availability, and as per the suitability/demand</u>
- For courses not having Detailed Syllabus in this document, Colleges/Departments may propose Detailed Syllabus, and submit to the Academic Registrar, GU for approval

| Sl | Skill Course Name | Semester |
|----|--|----------|
| No | | |
| 1 | Academic Writing | 1st |
| 2 | Agricultural Production System in North East India | 1st |
| 3 | Anthropological Tourism | 1st |
| 4 | Anuvad Charcha (Bengali-English/IndianLanguages) | 1st |
| 5 | Apiculture | 1st |
| 6 | Art of Acting | 1st |
| 7 | ASAMIYA AKHAR JOTANI | 1st |
| 8 | BAKERY SCIENCE | 1st |
| 9 | Bamboo and Cane Technology | 1st |
| 10 | Basic Analytical Chemistry | 1st |
| 11 | Basic Animation and Graphic Design | 1st |
| 12 | Basic Instrumentation Skills | 1st |
| 13 | Basic Programming in C | 1st |
| 14 | Basic Science Laboratory Skills | 1st |
| 15 | Basics of Laboratory Practices in Zoology | 1st |
| 16 | Basics of Photography | 1st |
| 17 | Beautician and Makeup | 1st |
| 18 | Bhasha Skhsan Ra Prabridhi in Nepali | 1st |
| 19 | Bodo Cuisine and FOOD PROCESSING Skills | 1st |
| 20 | BUSINESS COMMUNCATION | 1st |
| 21 | Byabaharik Asomiya | 1st |
| 22 | বাংলাভাষার বভিন্নি ব্যাবহারকি দকি ও সম্ভাবনা | 1st |
| 23 | Computer and Office Automation | 1st |
| 24 | COMPUTER APPLICATIONS | 1st |
| 25 | CSSD Technology-I | 1st |
| 26 | Cyber Laws | 1st |
| 27 | Data Collection and Presentation | 1st |
| 28 | DEMOCRACY AND LEADERSHIP BUIDING | 1st |

| 29 | Developing Soft Skills in English | 1st |
|----|--|-----|
| 30 | Digital Photography and editing | 1st |
| 31 | Document Presentationand Presentation Software | 1st |
| 32 | Domestic and Industrial Electrical wiring | 1st |
| 33 | Early Childhood Care and Development | 1st |
| 34 | Ecology and Environmental Management | 1st |
| 35 | Electronic Circuit Design | 1st |
| 36 | Electronic Data Processing | 1st |
| 37 | Elements of Art and Design | 1st |
| 38 | ELT Skill-1 | 1st |
| 39 | Ethno botany | 1st |
| 40 | Field Survey: Techniques and Application | 1st |
| 41 | Floriculture | 1st |
| 42 | Folk Dance of Goalpara | 1st |
| 43 | Food Processing & Quality Management | 1st |
| 44 | Foundamentals of Disaster Management | 1st |
| 45 | Functional Assamese | 1st |
| 46 | Functional Persian | 1st |
| 47 | Fundamentals of Typography | 1st |
| 48 | Fundamentals of Weather and Climate Sciences | 1st |
| 49 | Gender Sensitization | 1st |
| 50 | Geography of Tourism | 1st |
| 51 | Geological Laboratory Techniques | 1st |
| 52 | Grammar and Composition Skills | 1st |
| 53 | Gymnasium Skills | 1st |
| 54 | Handloom and Textile | 1st |
| 55 | Herbarium Techniques and its role in Modern Science | 1st |
| 56 | HINDI BHASA SHIKSHAN | 1st |
| 57 | Hindi Vyakaran Aur Asomiya Vyakaran Mein Samya Tatha | 1st |
| | Vasmya | |
| 58 | Legal Literacy & its application | 1st |
| 59 | Legislative Support | 1st |
| 60 | Life Skill Education | 1st |
| 61 | Managing Stress | 1st |
| 62 | Manipuri indigenous game & festivals | 1st |
| 63 | Microbiological Analysis of Air and Water | 1st |
| 64 | Microsoft Excel (Beginners) | 1st |
| 65 | Mushroom Cultivation Technology | 1st |
| 66 | Nepali Language learning | 1st |
| 67 | Non-Mulberry Sericulture | 1st |
| 68 | Nursery and Gardening | 1st |
| 69 | Organic Farming | 1st |

| 70 | Ornamental Fish and Fisheries | 1st |
|-----|---|-----|
| 71 | Page Maker | 1st |
| 72 | Panchayati Raj and Practice | 1st |
| 73 | Paramporagato Asomiya Lokanityar Paribekhan Soili | 1st |
| 74 | Pest Management | 1st |
| 75 | Philosophical Counseling | 1st |
| 76 | Photo Journalism | 1st |
| 77 | Photoshop | 1st |
| 78 | Physics Workshop Skills | 1st |
| 79 | Political Institutions and Its practices in India | 1st |
| 80 | Post Harvesting Technology | 1st |
| 81 | Principals & techniques of food processing & preservation | 1st |
| 82 | Programming in C | 1st |
| 83 | Quantitative Apptitude and Reasoning | 1st |
| 84 | Rachna Lekhan in Nepali | 1st |
| 85 | Reasoning & Logic | 1st |
| 86 | Renewable Energy and Energy Harvesting | 1st |
| 87 | Report Writing and presentation | 1st |
| 88 | Retail Management | 1st |
| 89 | River Basin Studies | 1st |
| 90 | Rural Marketing | 1st |
| 91 | Sankritik Paryatan aru Bhraman Byabasthapana | 1st |
| 92 | Sattriya Dance Skill | 1st |
| 93 | SCILAB | 1st |
| 94 | Secretarial Practice | 1st |
| 95 | Small Poultry Farming | 1st |
| 96 | Small Tea Garden Management | 1st |
| 97 | Social Media Marketing | 1st |
| 98 | Soft Skill-1 | 1st |
| 99 | Soil and Water Analysis | 1st |
| 100 | Spoken Arabic-1 | 1st |
| 101 | Spoken English | 1st |
| 102 | Spoken Hindi | 1st |
| 103 | Stress Management | 1st |
| 104 | Teaching Skill | 1st |
| 105 | Tools & Techniques for Local Handicraft Entrepreunership | 1st |
| 106 | Tour Packaging Management | 1st |
| 107 | Traditional Medicinal System in Mayong, Assam | 1st |
| 108 | Understanding Psychology | 1st |
| 109 | Video editing for social media | 1st |
| 110 | Weaving, Basic Weaves and Standard Febrics | 1st |
| 111 | Web Front-end Designing | 1st |

| 112 | Workshop Practice (Mechanical, Carpentry and Electronics) | 1st |
|-----|---|-----|
| 113 | Abrittikala / Art of Recitation | 1st |
| 114 | Mental Health and Hygine | 1st |

Detailed Syllabus are available for following courses:

• For courses not having Detailed Syllabus in this document, Colleges/Departments may propose Detailed Syllabus, and submit to the Academic Registrar, GU for approval

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| 40 | Photo Journalism | 1st |
| 41 | Photoshop | 1st |
| 42 | Physics Workshop Skills | 1st |
| 43 | Political Institutions and Its practices in India | 1st |
| 44 | Programming in C | 1st |
| 45 | Quantitative Apptitude and Reasoning | 1st |
| 46 | Reasoning & Logic | 1st |
| 47 | Renewable Energy and Energy Harvesting | 1st |
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| 52 | Spoken Arabic-1 | 1st |
| 53 | Spoken English | 1st |
| 54 | Spoken Hindi | 1st |
| 55 | Teaching Skill | 1st |
| 56 | Tools & techniques for Local Handicraft Entrepreunership | 1st |
| 57 | Tour Packaging Management | 1st |
| 58 | Traditional Medicinal System in Mayong, Assam | 1st |
| 59 | Understanding Psychology | 1st |
| 60 | Web Front-end Designing | 1st |
| 61 | Workshop Practice (Mechanical, Carpentry and Electronics) | 1st |
| 62 | Abrittikala / Art of Recitation | 1st |
| 63 | Mental Health and Hygine | 1st |
| 64 | HistoricalTourisminNorthEastIndia | 1st |

--Detailed Syllabus--

1. Academic Writing

Subject Name: English SEC FYUGP

Course Name: ACADEMIC WRITING

EXISTING BASE SYLLABUS: NIL

Objectives: This course is designed to -

| Ease th | e students | into th | e domain | of writing | that measures up | to academic standards. |
|---------|------------|---------|----------|------------|------------------|------------------------|
| | | | | | | |

- ☐ Introduce the central ideas and forms of academic writing, and guide the students through them in an orderly way.
- ☐ Facilitate and encourage methodical thinking and analyzing. Such processes would then enable the students to work on and improve the quality of their writing.

COURSE LEVEL: 100-199 (FOUNDATION AND INTRODUCTORY) COURSE

OUTCOMES (GRADUATE ATTRIBUTES):

Upon the end of this course, students should be able to:

- Understand the features of professional and academic writing.
- Enhance vocabulary, communicative and writing skills.
- Write grammatically cohesive and articulate sentences in their own words. Engage in critical thinking and brainstorming ideas.
- Form cogent arguments and compose analytical drafts.
- Review their essays to maintain academic integrity and avoidplagiarism.

TOTAL CREDITS: 3

COURSE CONTENT:

UNIT I: Introduction to the Writing Process

- Basics and Conventions of Academic Writing
- Reading and Developing Ideas
- Understanding Paragraph Formats
- Annotating
- Note-making

UNIT II: Organizing Paragraphs and Research Work

- Summarizing
- Paraphrasing

- Outlining Essays
- Planning and Structuring Arguments
- Introductions and Conclusions

UNIT III: Critical Analysis and Finalizing Drafts

- Citing quotations and Referencing
- Checking for Plagiarism
- Revision and Re-writing
- Final Editing
- Proofreading

REFERENCE BOOKS & MATERIALS:

Bailey, Stephen. Academic Writing: A Practical Guide for Students. RoutledgeFalmer, 2004. Booth, Wayne C., et al. The Craft of Research. The University of Chicago Press, 2016. Day, Trevor. Success in Academic Writing. Palgrave Macmillan, 2013.

Sivia, Paul J. How to Write a Lot: A Practical Guide to Productive Academic Writing. American Psychological Association, 2007.

Zemach, Dorothy E., and Lisa A. Rumisek. Academic Writing: From Paragraph to Essay. Macmillan, 2005

2. Agricultural Production System in North East India

Credit: (2+1)

Course Description: This course is designed to introduce the students to the nature of agricultural production system that exist in North-East India. The course intends to familiarise the students with various cropping systems, farming systems and post-harvest management systems.

Unit 1- Introduction- Nature and scope of agriculture. Agricultural Scenario in north east India and Assam, Trends of agricultural production in India and Assam. Agriculture and economic development, Agro-climatic zones, Climate change, Land holding and farmers' categories, Plant propagation and Nursery management, Diversification of agriculture.

Unit 2- Cropping systems in agriculture & horticulture -Crop rotation, Intercropping, Mixed Cropping, Relay cropping, Multi-storied cropping, kharif, rabi and zaid crops. Integrated Farming System, Tillage and soil preparation, Pre and post harvest management of agri-horti crops.

Unit 3- Practical –Plant propagation techniques, Model preparation on diversified integrated farming systems,

3. Apiculture (Syllabus 1)

Skill enhancement course Apiculture Code: ZOOCredit: 2(T) + 1 (P)

Course Objectives:

Apiculture is the scientific method of rearing or management of colonies of honey bees for obtaining honey and other bee products as well as getting pollination services. Bee keeping covers entomology, horticulture, agriculture, animal husbandry, forestry etc. This field bears tremendous potential of generating sustainable livelihood as the honey bee products has high market value in medicinal, pharmaceutical, cosmetics, food industries etc. The objectives of the course are to impart knowledge on biology, rearing techniques, diseases and enemies of bees, prospects of the field to venture in entrepreneurship development by their own or to pursue higher studies in the field.

Course Learning Outcome:

Upon completion of the course, students should be able to:

- Understand the biology and rearing methods, tools and techniques of honey bees
- Acquire practical skill of identifying stages of honey bees, structure of bee hives etc
- Understand the value and economics of honey bee products in the market.
- Develop curiosity to venture in the field as entrepreneur or to pursue research in future.

Skill enhancement course Apiculture

Code:

Credit: 2(T) + 1(P)

THEORY Hours 30

Unit 1: Biology of Bees, Diseases and Enemies

12h

Types and Biology of HoneyBees, Social Organization of Bee Colony, Bee Diseases and Enemies, Control and Preventive measures

Unit 2: Rearing of Bees Artificial Bee rearing (Apiary), Beehives – Newton andLangstroth, Bee Pasturage, Selection of Bee Species forApiculture, Bee Keeping Equipment, Methods of Extraction of Honey (Indigenous and Modern) Unit 3: Bee Economy and Entrepreneurship in Apiculture Apiculture Industry and products of bees and their Uses (Honey, Bees Wax, Propolis, Pollenetc)

Apiculture

PRACTICAL Hours 15

- 1. Study of the various stages of Life cycle of Honey bee.
- 2. Identification of various equipment of bee keeping.
- 3. Methods of Extraction of Honey (Indigenous and Modern).
- 4. Structure of bee hives (Newton and Langstroth).
- 5. Preparation of slide- pollen basket, sting-apparatus
- 6. Testing of purity of honey.
- 7. Preparation of a report on pathogens and pests of honey bees

Suggested Readings:

- 1.Prost, P. J. (1962). Apiculture. Oxford and IBH, New Delhi.
- 2. Bisht D.S., Apiculture, ICAR Publication.
- 3. Singh S., Beekeeping in India, Indian council of Agricultural Research, NewDelhi.

Syllabus2

GU FYUGP-2023 Sub: ZOOLOGY

SKILL ENHANCEMENT COURSES APICULTURE

CREDITS-4

Unit 1: Biology of Bees

History, Classification and Biology of Honey Bees

Social Organization of Bee Colony

Unit 2: Rearing of Bees

Artificial Bee rearing (Apiary), Beehives–Newton and Langstroth

Bee Pasturage

Selection of Bee Species for ApicultureBee Keeping Equipment

Methods of Extraction of Honey (Indigenous and Modern)

Unit 3: Diseases and Enemies

Bee Diseases and Enemies

Control and Preventive measures

Unit 4: Bee Economy

Products of Apiculture Industry and its Uses (Honey, Bees Wax,

Propolis), Pollen etc

Unit5: Entrepreneurship in Apiculture

Bee Keeping Industry–Recent Efforts, Modern Methods in employing artificial Bee hives for cross pollination in horticultural gardens

SUGGESTED READINGS

- Prost, P. J. (1962). Apiculture. Oxford and IBH, New Delhi.
- Bisht D.S., *Apiculture*, ICAR Publication.
- Singh S., Bee keeping in India, Indian council of Agricultural Research, New Delhi.

4.Art of Acting

Paper name: - Art of Acting

Credits: 3

Theory classes: 17 classes (one hour each – 17 hrs)

Practical classes: 16 classes (two hours each – 32 hrs)

Theory: 50 Marks

Practical: 50 Marks

Course Description: Individuals at this job need to enact various characters for various theatre & media productions like; feature film, advertising film, documentaries, short films, television series, daily soaps etc

Objectives: This job requires the individual to have the essential to perform i.e. excellent communication skills, control over body, mind and voice, flair for mimicry and drama, sense of humour, emotional rendering, flexibility of body and voice, versatility, language skills etc. The individuals must be able to perform confidently and adapt performance to different emotions and characters accordance to requirements. The individuals must be able to understand and interpret requirements correctly and be capable of offering suggestions/alternatives to his/her director during shooting.

Specific Objectives:

- 1. Performance techniques and principles
- **2**. The essential elements for performance(good health, voice, communication skills, body language, body flexibility, emotional rendering, control over voice and body, voice modulation etc)
 - 3. How to maintain continuity of voice quality and physic throughout the performance
 - **4.** How to maintain the same tempo, tone, volume and pitch during the role/character performed earlier
 - **5.** How to increase and maintain body flexibility
 - 6. How to concentrate on a particular role/character and focus on the performance
 - 7. How to breathe correctly and have control over it
 - 8. The basic of media industry and different roles different professionals play
 - **9.** How to listen to instructions carefully
 - **10.** How to infer the meaning of dialogues and action
 - **11.** How to enact and emote through voice, accent and body
 - **12.** How to use his/her body and voice to convey emotions and different characters through developed techniques
 - **13.** How to sing, dance (optional) if required/demanded by the role/character
 - **14.** How to come up with answers and suggestions/alternatives to offer his/her director during performance.
 - **15.** How to overcome performance pressure and anxiety and perform confidently

Course Outcome: Individuals at this job need to enact various characters for various theatre & media productions like; feature film, advertising film, documentaries, short films, television series, daily soaps etc

Course Content:

Unit 1: Basic knowledge about Acting

- What is Acting?
- Types of Acting
- Types of Actor
- Camera acting versus Stage acting

Unit 2:Introduction to different School of Acting

Analyzing and practicing the different schools of Acting.
 (Western Schools of Acting including Stanislavsky's Method Acting,

Michael Chekhov's Psycho-physical approach', Meisner technique,

DevidMamet and William H. Macy's Practical Aesthetics, Brecht's Epic Drama etc.)

• Natyashastra and Rasa Theory

Unit 3: Actors Preparation (basic information and practice)

• Voice & Music:

To develop voice range, scale, rhythm etc.

- Speech: Accents and Dialects
- Body Movement & Yoga: To develop flexibility of body, impulse etc.

Unit 4: Characterization

- Play reading and Play analysis
- Character Analysis

Unit 5: Improvisation

Improvisation: To enhance an actor's abilities, To develop Skills such as: *active listening, being in the moment, following intuition and making strong choices.*

• Actors preparation: The Embodied Voice:

Acting: Scene Study Movement: Exploration

Improvisation: Spontaneity in Action & speech

Actors skill: Writing Your Story
 Expand Your Range

Experimentation and Performance

• Audition: How to prepare for different kind of Audition

PRCTICL -Improvisation, Characterization, Presentation or Production: 50 marks

Text book: (ANY ONE OR TWO)

- 1. Hamlet by William Shakespeare.
- 2. Mritchakatikam by Shudrak.
- 3. EjakJonakirJilmil by Dr.BhabendraNathSaikia.
- 4. Rupaleem by JyotiprassadAgarwala.
- 5. AshadKaEk Din by Mohan Rakesh.
- 6. The Cherry Orchard Anton Chekhov.

References:

1. Natya Shastra by Bharatmuni.

Marks: 10

Marks: 10

Marks: 10

Marks: 10

Marks: 10

- 2. The Stanislavsky System by Sonia Moore.
- 3. An actor prepares by Konstantin S. Stanislavsky.
- 4. Creating a role by Konstantin S. Stanislavsky.
- 5. Building a character by Konstantin S. Stanislavsky.
- 6. To the Actor by Michael Chekhov.
- 7. On the technique of acting by Michael Chekhov.

5. ASAMIYA AKHAR JOTANI প্রথমষান্মাষিক

(Skill Course) Syllabus

অসমীয়াআখৰজোঁটনি

-By Ratnapith College

(উদ্দেশ্য:

অসমীয়াভাষাবৃত্তিগতভাৱেব্যৱহাৰকৰিবলৈশুদ্ধআখৰজোঁটনিৰজ্ঞানঅপৰিহাৰ্য।এইপাঠ্যতঅসমীয়াআখ ৰজোঁটনিৰনিয়মআৰুকৌশলসম্পৰ্কীয়জ্ঞানসন্নিবিষ্টহৈছে)

প্ৰথমগোট : বৰ্ণাশুদ্ধিৰকাৰণ:

স্বৰধ্বনিগতবৰ্ণাশুদ্ধি - স্বৰধ্বনিআৰু আখৰৰসম্পৰ্ক, স্বৰচিহ্ন।

দ্বিতীয়গোট : ব্যঞ্জনধ্বনিগতবর্ণাশুদ্ধি:

ব্যঞ্জনধ্বনিআৰুআখৰৰসম্পৰ্ক, যুক্তাক্ষৰ।

তৃতীয়গোট : ভুলপ্রয়োগ:

বিভক্তি, প্ৰত্যয়, চন্দ্ৰবিন্দু, যতিচিহ্ন, তৎসমশব্দৰবানান, থলুৱাশব্দৰবানান

চতুর্থগোট : লিপ্যন্তৰপদ্ধতিআৰুপ্রয়োগ

সহায়কগ্ৰন্থ (নিৰ্বাচিত)

অসমীয়াআখৰ-জোঁটনিআৰুলিপ্যন্তৰপদ্ধতি: গুৱাহাটীবিশ্ববিদ্যালয়

অসমীয়াআখৰ-জোঁটনিঅসমীয়া: গোলকচন্দ্ৰগোস্বামী

ব্যাকৰণতত্বআৰুতাত্বিক: খগেশসেনডেকা

নিকাঅসমীয়াভাষা: মহোশ্বৰনেওগ

6. Basic Analytical Chemistry

--By Nabajyoti College Kalgachia

Skill Enhancement Course (SEC)
CHEMISTRY
Course Code:
(Contact Hours-45 Lectures; Credits:)

Full Marks = 80 [End Semester Exam (60) Internal Assessment (20)]

Unit I: Introduction

Introduction to Analytical Chemistry and its interdisciplinary nature. Concept of sampling. Importance of accuracy, precision and sources of error in analytical measurements. Presentation of experimental data and results, from the point of view of significant figures.

6 Lectures, Marks –6

Unit II: Basic principles of quantitative analysis

Estimation of metal ions from aqueous solution, geometrical isomer, keto-enol tautomers, determination of metal complex composition using Job's method of continuous variation and mole ratio method.

6 Lectures, Marks – 8

Unit III: Analysis of soil

Composition of soil, Concept of pH and pH measurement, Complexometric titrations, Chelation, Chelating agents, use of indicators

- a. Determination of pH of soil samples.
- b. Estimation of Calcium and Magnesium ions as Calcium carbonate by complexometric titration.

8 Lectures, Marks - 10

Unit IV: Analysis of water

Definition of pure water, sources responsible for contaminating water, water sampling methods, water purification methods.

- a. Determination of pH, acidity and alkalinity of a water sample.
- b. Determination of dissolved oxygen (DO) of a water sample.

8 Lectures, Marks - 12

Unit V: Analysis of food products

Nutritional value of foods, idea about food processing and food preservations and adulteration.

- a. Identification of adulterants in some common food items like coffee powder, asafoetida, chilli powder, turmeric powder, coriander powder and pulses, etc.
- b. Analysis of preservatives and colouring matter.

9 Lectures, Marks - 12

Unit VI: Chromatography

Definition, general introduction on principles of chromatography, paper chromatography, TLC etc.

- a. Paper chromatographic separation of mixture of metal ion (Fe³⁺ and Al³⁺).
- b. To compare paint samples by TLC method.

8 Lectures, Marks - 12

Suggested Applications

a. To study the use of phenolphthalein in trap cases.

Suggested Instrumental demonstrations:

a. Estimation of macro nutrients: Potassium, Calcium, Magnesium in soil samples by flame photometry

Reference Books

- 1. Willard, H.H., Merritt, L.L., Dean, J. & Settoe, F.A. *Instrumental Methodsof Analysis*, 7th Ed. Wadsworth Publishing Company Ltd., Belmont, California, USA,1988.
- 2. Skoog, D.A., Holler, F.J. & Crouch, S. *Principles of Instrumental Analysis*, Cengage Learning India Edition, 2007.
- 3. Skoog, D.A.; West, D.M. & Holler, F.J. *Analytical Chemistry: An Introduction 6thEd.*, Saunders College Publishing, Fort Worth, Philadelphia (1994).
- 4. Harris, D. C. Quantitative Chemical Analysis, 9th ed. Macmillan Education, 2016.
- 2. Dean, J. A. Analytical Chemistry Handbook, McGraw Hill, 2004.
- 3. Day, R. A. & Underwood, A. L. Quantitative Analysis, Prentice Hall of India, 1992.
- 4. Freifelder, D.M. Physical Biochemistry 2nd Ed., W.H. Freeman & Co., N.Y. USA (1982).
- 5. Cooper, T.G. The Tools of Biochemistry, John Wiley & Sons, N.Y. USA. 16 (1977).
- **6.** Vogel, A. I. Vogel's Oualitative Inorganic Analysis 7th Ed., Prentice Hall, 1996.
- 7. Mendham, J., A. I. Vogel's Quantitative Chemical Analysis 6th Ed., Pearson, 2009.
- 8. Robinson, J.W. Undergraduate Instrumental Analysis 5th Ed., Marcel Dekker, Inc., NewYork (1995).
- 9. Christian, G.D. Analytical Chemistry, 6th Ed. John Wiley & Sons, New York, 2004.

Course Code:

Basic Analytical Chemistry (Lab Work)

(Contact Hours- Lectures; Credits:)
Full Marks = 20

I. Any one Experiment to be Set in the Examination

1X8 = 8

- a. Separation and identification of monosaccharides present in a given mixture (Glucose and Fructose) by paper chromatography. Report Rf Values.
 - b. Separation of organic compounds present in a given mixture by TLC method.
 - c. Estimate the Ni (ii) present in a given solution by gravimetric analysis.
 - d. Estimate the alkali present in a given antacids.

| II. F | Practical Note | Book | | | | | 3 | |
|-----------------|-----------------|-------------|---------------|------------------|-------------|---------------|---------|-------------|
| III. V | iva-Voce | | | | | | 5 | |
| Refe | rence Books | | | | | | | |
| | ogel, Arthur I: | : A Test bo | ook of Quanti | tative Inorganic | Analysis (F | Rev. by G. H. | Jeffery | and others) |
| 5 th | Ed., | The | English | Language | Book | Society | of | Longman. |

4

e. Determine the dissolve oxygen in water.

II. Identification of different analytical instruments.

2. Willard, Hobert H. et al.: Instrumental Methods of Analysis, 7th Ed., Wardsworth Publishing California, ÚSA, Belmont, 1988. Company, 3.Khopkar, S.M. Basic Concepts of Analytical Chemistry. New Age, International Publisher, 2009.

7.Basic Instrumentation Skills

Credits: 3 (Theory: 3, Lab: 1)

Theory: 20 Lectures

Preferred minimum qualifications of the teacher/instructor: Assistant Professor of Physics/B.E./B.Tech in Instrumentation/Mechanical Engineering.

This course is to get exposure with various aspects of instruments and their usage through hands-on mode. Experiments listed below are to be done in continuation of the topics.

Theory

UnitI:BasicofMeasurement(Lectures3)

Instruments accuracy, precision, sensitivity, resolution range etc. Errors in measurements and loading effects. Multimeter: Principles of measurement of dc voltage and dc current, ac voltage, ac current and resistance. Specifications of a multimeter and their significance.

Unit II: Electronic Voltmeter (Lectures 3)

Advantage over conventional multimeter for voltage measurement with respect to input impedance and sensitivity. Principles of voltage, measurement (block diagram only). Specifications of an electronic Voltmeter/ Multimeter and their significance. AC millivoltmeter: Type of AC millivoltmeters: Amplifier- rectifier, and rectifier- amplifier. Block diagram ac millivoltmeter, specifications and their significance.

Unit III: Cathode Ray Oscilloscope (Lectures 4)

BlockdiagramofbasicCRO.ConstructionofCRT,Electrongun,electrostaticfocusingandaccelerat ion(Explanation only— no mathematical treatment), brief discussion on screen phosphor, visual persistence & chemical composition. Time base operation, synchronization. Front panel controls. Specifications of a CRO and their significance.

Unit IV: (Lectures 4)

Use of CRO for the measurement of voltage (dc and ac frequency, time period. Special features of dual trace, introduction to digital oscilloscope, probes. Digital storage Oscilloscope: Block diagram and principle of working.

Unit V: Signal Generators and Analysis Instruments (Lectures 6)

Block diagram, explanation and specifications of low frequency signal generators, pulse generator, and function generator. Brief idea for testing, specifications. Distortion factor meter, wave analysis.

The test of lab skills will be of the following test items:

- 1. Use of anoscilloscope.
- 2. CRO as a versatile measuring device.
- 3. Use of Digital multimeter for measuringvoltages
- 4. Circuit tracing of Laboratory electronic equipment,
- 5. Winding a coil /transformer.
- 6. Study the layout of a circuit.
- 7. Trouble shooting a circuit

Lab

- 1. Toobservetheloadingeffectofamultimeterwhilemeasuringvoltageacrossalowresista nceandhigh resistance.
- 2. To observe the limitations of a multimeter for measuring high frequency voltage and currents.
- 3. Measurement of voltage, frequency, time period and phase angle using CRO.
- 4. Measurement of rise, fall and delay times using aCRO.
- 5. Measurement of R, L and C using a LCR bridge/universal bridge.

Open Ended Experiments:

- Using a Dual TraceOscilloscope
- Converting the range of a given measuring instrument (voltmeter, ammeter)

Reference Books

- [1] Electronic Measurements and Instrumentation, K. Lal Kishore, PearsonIndia
- [2] ElectricalandElectronicsMeasurementsandInstrumentation,PrithwirajPurkait,Budhadity aBiswas,Santanu Das, Chiranjib Koley, McGraw HillIndia.
- [3] A text book in Electrical Technology B L Theraja S Chand and Co.
- [4] Performance and design of AC machines M G Say ELBSEdn.
- [5] Digital Circuits and systems, Venugopal, 2011, Tata McGrawHill.
- [6] Logic circuit design, Shimon P. Vingron, 2012, Springer.
- [7] Digital Electronics, Subrata Ghoshal, 2012, CengageLearning.
- [8] Electronic Devices and circuits, S. Salivahanan & N. S.Kumar, 3rd Ed., 2012, Tata McGrawHill
- [9] Electronic circuits: Handbook of design and applications, U.Tietze, Ch.Schenk, 2008, Springer
- [10] Electronic Devices, 7/e Thomas L. Floyd, 2008, PearsonIndia

8. Basic Programming in C

(Skill Enhancement Course)

---ByDept of Computer Science, GU

- 1. Learning Outcomes: After completing this course, the students will be
 - Familiar with what a programming language is
 - Familiar with flowchart and pseudo code
 - Familiar with the constructs of C programming languages
 - Capable of writing basic C programs
- 2. Prerequisites: NIL
- 3. Semester: 1
- 4. Course type: Skill Enhancement Course
- **5. Course level:** 100-199
- 6. Theory credit:2
- 7. Practical credit: 1
- 8. Number of required hours:
 - a) Theory: 30 hrs (30 classes)
 - **b) Practical:** 30 hrs (15 classes)
- 9. Reference books:
 - B.S. Gottfried, "Schaum's Outline of Theory and Problems of Programming with C", Mcgraw-Hill, 2007.
 - B. Kernighan, D. Ritchie, "The C Programming Language", Second Edition, Prentice Hall, 1988
 - E. Balaguruswami, "Programming in ANSI C", 2nd Ed., Tata McGraw Hill, 2004.

10. Contents of Syllabus:

Unit 1: Programming Basics

(3 Lectures)

Introduction to programming languages. Low-level and high-level language and their characteristics. Compiler vs. interpreter. IDE. Bugs and its types. Algorithms, pseudocodes and flowcharts. Overview of the C programming language. Structure of a C program.

Unit 2: Data types and Operators

(6 Lectures)

Basic data types in C - integers, floats, doubles, characters, and void. Size and range of values of data types. Variables. Declaring variables. Operators and expressions, Input and output statements – getchar(), getc(), getch(), putchar(), putc(), puts(), scanf(), printf(), format specifiers. Typecasting. Operators in C – binary and unary operators. Arithmetic, assignment, logical, comparison, bitwise and conditional operators. Order of precedence of operators. Associativity of operators. Expressions and statements in C. L-value and R-value. Basic syntax and semantics for expressions and statements.

Unit 3: Control Structures, Functions and Header files

(8 Lectures)

Control structures in C. Decision making with if, if-else, switch statements. Nested conditions. Looping with while, do-while, and for statement. Break and continue statements. Nested loops. Introduction to functions. Function prototypes and arguments. Defining and calling functions in C. Return values and types. Formal and actual parameter. Call by value, Call by reference. Introduction to recursion. Writing recursive functions in C. Importance of main() function, return type of main() function. Preprocessor directives. Include and Define statements. Header files.

Unit 4: Arrays and Strings

(4 Lectures)

Introduction to arrays. Declaration and initialization of arrays. Accessing array elements. Multidimensional arrays. Introduction to strings. Declaration and initialization of strings. String input and output in C. String manipulation functions in C – strlen(), strcpy(), strcat(), strcmp().

Unit 5: Pointers and Memory Allocation

(3 Lectures)

Introduction to Pointers. Pointer declaration and initialization. Pointers and addresses. Pointers and arrays. Pointers and functions. Review of call by reference. Pointer arithmetic.

Unit 6: Structure and Union

(3 Lectures)

Introduction to structures. Declaration and initialization of structures. Accessing structure members. Nested structures and arrays of structures. Unions in C. Declaration and initialization of unions. Accessing union members. Differences between structures and unions.

Unit 7: File Handling and Preprocessor Directives

(3 Lectures)

Introduction to file handling in C. Opening and closing files – fopen(), fclose(). Modes of opening a file. Binary files and text files. Reading and writing files – fgetc(), fgets(), fread(), fputc(), fputs(), fwrite(). File pointers.

List of Practical

(This is a suggestive list only. Problems need not be restricted to this list.)

- 1. Write a program in C to print "Hello World"
- 2. Write a program to take input of two numbers and print their sum, product and difference.
- 3. Write a program to find the smallest or greatest of three numbers given as input.
- 4. Write a program to compute simple interest from user given inputs.
- 5. Write a program to compute factorial of a user given number.
- 6. Write a program to print the sum and product of digits of an integer.
- 7. Write a program to print a triangle of stars as follows (take number of lines from user as input):

- 8. Write a program to reverse a number.
- 9. Write a program to compute the sum of the first n terms of the following series S = 1+1/2+1/3+1/4+...
- 10. Write a program to compute the sum of the first n terms of the following series S = 1-2+3-4+5...
- 11. Write a function that checks whether a given string is Palindrome or not.
- 12. Write a function to find whether a given no. is prime or not.
- 13. Write a program to compute the factors of a given number.
- 14. Write a program that accepts 10 numbers from the user, stores the numbers in an array and finally displays the maximum and minimum of the numbers.
- 15. Write a program to perform following operations on strings:
 - a) Convert all lowercase characters to uppercase
 - b) Convert all uppercase characters to lowercase
 - c) Calculate number of vowels in the string
 - d) Reverse the string
- 16. Write a program to implement struct in C. Create a structure of Student with RNo, Name and other credentials with proper datatype and print the same.
- 17. Write a program to implement union in C. Create a structure of Person with Pid, Name and other credentials with proper datatype and print the same.
- 18. Write a C program that opens a file for reading and displays the contents of the file in binary mode and text mode.

- 19. Write a C program that opens a file for reading and displays the contents of the file character by character and line by line on the screen.
- 20. Write a C program to open a file and count the number of characters and lines in the file.
- 21. Write a C program that opens a file in append mode and allows the user to add text to the end of the file.

9. Basics of Laboratory Practices in Zoology

(Total: 3 credits)

THEORY (2 credits)

Unit 1: Introduction to Biological Lab (5)

Practical and observation notebook maintenance, Instrument calibration, Glass waresand lab instruments cleaning and maintenance, museum specimens, specimen cataloging and preservation

Unit 2: Bioinstrumentation (9)

Basics of microscopy, spectrometry, colorimetry and microtomy. Autoclave, incubator, laminar air flow, centrifuge, pH meter, chromatography, electrophoresis, and pipetting (traditional and automatic)

Unit 3: Solution preparation (5)

General Math skills in reagent preparation, percent solutions, molarity, molality, normality, buffer solutions, reagents, and stains

Unit 4: Laboratory safety (3)

Basics of laboratory safety, handling and storage of chemicals and reagents, precautions in handling hazardous chemicals

PRACTICAL (1 credit)

- 1. Instrument calibration
- 2. Reagent preparation
- 3. Specimen submission

Reference books:

- 1. Ananta Swargiary. Biological Tools and Techniques. Kalyani Publications.
- 2. S.C. Nigam and Omkar. Experimental Animal Physiology and Biochemistry. New Age International Publishers.
- 3. Gerardus Blokdyk. Good Laboratory Practice A complete guide. 5 Star Cooks Publishers.

10.Beautician and Makeup

BEAUTICIAN COURSE

Total Marks = 100 (Theory 30 marks + Practical 70 Marks)

The syllabus of basic beautician course covers the basics of various beauty services. The basic beauty parlor course syllabus is designed from a perspective of a beginner and covers the basics such as threading, facial stokes, bridal make up, party makeup, waxing, hair styling and more.

| Threading (face, forehead, upper lips, etc.) | Facial Stokes |
|--|--------------------|
| Skin care | Waxing |
| Manicure & pedicure | Head Massage |
| Basic Bridal Make-up | Basic Hair Cutting |
| Basic Make-up | SPA |
| Hairstyle | Hair Care & Bun |
| Bleaching | |

COURSE OUTCOME:

This skill enhancement course will be designed in a way to develop the student's practical skill and theoretical knowledge to a level that they can expect to make a career in the beauty industry. This will encourage thefemale students to develop entrepreneurial skills, which in turn, would make them self-dependent and also boost their self confidence.

11. Bodo Cuisine and FOOD PROCESSING Skills

BOD-Skill Enhancement Course

Marks= 50 (Theory) + 50 (Practical)=100

Paper Title: Food processing system of the Bodos: Tradition to Modernity (1st)

Course outcomes:

• Come to know about the food processing system of the Bodos from past to present

Unit I: An introduction to the food processing system: method and types

20

Unit II: Food preservation system of the Bodos: Past, present and future prospect

20

Unit III: Impact of modern foods on Bodo food habits

10

Note: Practical will be taken from prescribed topics given below:

- 1. Collection and documentation of materials for traditional Bodo food recipes
- 2. Presentation on traditional Bodo food presentation system
- 3. Presentation on traditional Bodo beverage

Suggested Readings:

- 1. Boro-KocharirSomajAruSanskriti: BhabenNarzee
- 2. Principle of Food Science Part-II: Physical Method of Food Preservation- M. Kare, O.R.
- 3. Fennema and D.B. Lurd, Marcel Dekkar
- 4. Principles of Food Preservation- V. Kyzlimk, Elsevier Press
- 5. Modern Food Microbiology- Jemes M Jay, D. Van Nostrand
- 6. Nutrition and dietics- Rose
- 7. Nutrition and dietics- Joshi

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12. BUSINESS COMMUNCATION

By- Ratnapith College

DEPARTMENT OF ENGLISH

CREDITS- 2 TOTAL MARKS- 100

Learning Objectives

After studying this course, students will be able to improve presentation skills to be learnt by effective use of verbal and non-verbal communication for the professional field. The students will also be able to acquire practical employability skills to be disseminated through focused sessions on practical employable knowledge and will be able to enhance professional communication.

UNIT 1- THEORY OF BUSINESS COMMUNICATION

- Introduction
- What is Business Communication?
- Language of Business Communication
- Miscommunication & Effective Communication

UNIT 2 -Writing Skills

- Summarising & Paraphrasing
- Job-Oriented Skills- CV, Resume & Bio- Data, Job Application Letter.
- Documentation.
- Letter Writing- Applications, Business Letters
- Report- Analytical Report, Project Report

UNIT 3- PRACTICE SESSIONS-

- Advertisements & Invitation
- Making Online Academic/Work Profile- LinkedIn.
- Speaking Skills, Presentation Skills- Oral Presentation, Ppt. Preparation, Ppt. Presentation.
- Interview- Promotion Interview, Job Interview, Business Interview

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below.

Suggested Readings

- Kaushik, J.C. and K.K. Sinha eds., English for Students of Commerce, Oxford University Press, New Delhi.
- Sethi, Anjana & Bhavana Adhikari, Business Communication, Tata McGraw Hill.
- Anjana Neira Dev, et.al, eds. Business English, Department of English, University of Delhi, 2011, Pearson Publications, New Delhi.

13. Byabaharik Asomiya

--By Laharighat College

প্রথমগেটেঃ

আৰ্হপাঠঃপদ্ধতআিৰুকৌশল।

দ্বতীয়গ**ে**।টঃ

ছপাআৰুবদৈ্যুতনিমাধ্যমৰবাববেজ্ঞাপনলখেন, ইংৰাজীহনি্দীবজ্ঞাপনৰ

অসমীয়াঅনুবাদ।

তৃতীয়গ∙োটঃ

অনুবাদঃসংবাদ,প্রবন্ধ, সাক্ষাকাৰ।

চতুৰ্থগ∙োটঃ

চত্ৰনাট্যনৰি্মাণঃসাহতি্যৰচতি্ৰায়ণ।

(Syllabus 2)

Byabaharik Asomiya

--By Nabajyoti College, Kolgachai

SEC Syllabus of FYUGP

Gauhati University

B.A 1st semester

Subject: Assamese

Paper Name : ব্যৱহাৰিক অসমীয়া

Total Marks: 100

| প্রথম গোট: | ২0 |
|--|------|
| আৰ্হি পাঠ : পদ্ধতি আৰু কৌশল | |
| দ্বিতীয় গোট: | ২০ |
| ছপা আৰু বৈদ্যুতিন মাধ্যমৰ বাবে বিজ্ঞাপন লেখন, ইংৰাজী হিন্দী বিজ্ঞ অসমীয়া অনুবাদ। | গপনৰ |
| তৃতীয় গোট : | ২০ |
| অনুবাদ : সংবাদ , প্ৰবন্ধ , সাক্ষাৎকাৰ | |
| চতুর্থ গোট : | ২০ |
| চিত্ৰনাট্য নিৰ্মাণ: সাহিত্যৰ চিত্ৰায়ণ | |
| পঞ্চম গোট : | |
| रेत्रज्ञानित याधायत तिष्ठाश्रम्म जिल्लिका शास्त्री/ विक्रमानि श्रम्भीन | 50 |

14.বাংলাভাষার বভিন্ন ব্যাবহারকি দকি ও সম্ভাবনা

| Paper | · Code - BEN SEC PAPER- 1 Credits-3 | |
|--------|--|---------|
| Paper | · Title -বাংলা ভাষার বভিন্নি ব্যাবহারকি দকি ও সম্ভাবনাExternal M | arks—80 |
| (প্রুফ | সংশণেধন, পরভাষা ওসম্পাদনা)Internal Marks—20* | |
| Units | Topics | Marks |
| | | |
| I | বাংলা বানান বধি ও প্রুফ সংশণেধন | 20 |
| | বাংলা বানান বধিরি প্রাথমকি ধারণা, প্রুফ সংশণেধন চহি্ন, প্রুফ | |
| | সংশণেধনরে সংজ্ঞা, বশৈষ্ট্য, সমস্যা, প্রয়ণেজনীয়তা, রীত িও ব্যাবহারকি | |
| | প্রয়∙োগ | |
| II | বাংলা পরভাষা | 20 |
| | পরভাষার সংজ্ঞা, বশৈষ্ট্য ও আবশ্যকতা, বষিয়ভত্তিকি পরভাষার ধারা | |
| | (সাহতি্য-শল্পরে পরভাষা, বাণজ্িযরে পরভাষা, বজ্ঞানরে পরভাষা, | |
| | প্রশাসনকি ও রাজনতৈকি পরভাষা) | |
| Ш | সম্পাদনা | 20 |
| | পত্রকাি এবং গ্রন্থ সম্পাদনা, সম্পাদনা পদ্ধত,ি বশৈষ্ট্য, সম্ভাবনা, | |
| | সমস্যা, প্রত্যাহ্বান | |
| | গ্রন্থরে বভিন্ন অংশ: প্রচ্ছদ, আখ্যাপত্র, উসর্গপত্র, সম্পাদকীয়, | |
| | ভূমিকা, সূচপিত্র, পুস্তানি, লখেক পরচিতি, ISBN ও ISSN | |
| | সম্পর্কতিপ্রাথমকিধারণা, পরশিষ্টি, গ্রন্থপঞ্জি, নরি্ঘণ্ট | |
| IV | আন্তর্জালরে বৃত্তমূিলক প্রয়োগ | 20 |
| | কন্টটে রাইটিং, ফ্রলািন্সাং, বজি্ঞাপন নরি্মাণ, শকি্ষামূলক ভডিওি | |
| | নরি্মাণ, ই-মার্কটেংি, ব্লগ নরি্মাণ কৌশল, স্বত্ব-বষিয়ক আইন | |
| | (copyright Act), গরনথসবতবরে গরতব ও পরয়েনেজনীয়তা | |

Reference Books:

- ১। সুভাষ ভট্টাচার্য তষ্ঠ ক্ষণকাল, আনন্দ পাবলশাির্স
- ২। নীরন্ে্রনাথ চক্রবর্তী (সম্পা.) বাংলা কী লখিবনে কনে লখিবনে, আনন্দ পাবলশাির্স
- ৩। সুভাষ ভট্টাচার্য লখেক ও সম্পাদকরে অভধািন, আনন্দ পাবলশাির্স
- 8। পরভাষা কণেষ সুপ্রকাশ রায়, বদ্যণোদয় লাইব্ররৌ
- ৫। পরভাষা অভধান বাংলা একাডমে,ি ঢাকা
- ৬। রাজশখের বসু চলন্তকাি, এম. স.ি সরকার

^{*}Candidates have to attend one Sessional Exam, of 40 marks and submit two Home Assignments each of 20 Marks for Internal Assessment Marks. Internal Assessment marks will be given out of 20 marks by averaging the marks obtained in Sessional Examination and Home Assignments.

৭ শিলৈন্দ্র বশ্বাস (সম্পা) – সংসদ বাংলা অভধান, সাহত্য সংসদ ৮ বানান অভধান- পশ্চমিবঙ্গ বাংলা অকাদমে ৯। প্রুফ সংশণেধনরে প্রথম পাঠ – অপরাজতা বন্দ্যণেপাধ্যায়, প্রজ্ঞা বিকাশ ১০। কম্পিউটার এবং ইন্টারনটে টপিস্ - মণে. আনসুর রহমান, তাম্রলিপি, ঢাকা ১১। ইন্টারনটে ইনকাম ও প্রাসঙ্গিক তথ্য – খালকেজ্জামান এল্জী, মম প্রকাশনী, ঢাকা

Outcome: The course will enable students to develop real-life skills about various applications of Bengali language. They will gather theoretical knowledge about proof reading, Bengali terminologies and journal and book editing.

15. Computer and Office Automation

SEC Syllabus of FYUGP

Subject: Information Technology in Business

Course: SEC Total Marks:-100
Course Level: (External-50)
Course Title: Computer and Office Automation (Internel-50)

Course Description: The main objective of this course is to make the students aware about the best use of technology to make the business potent. As it is an established fact that technology can become one of the key success factors for the company, enhanced knowledge of technology and advanced computer applications can give added advantage to new generation managers. The entry of big multinationals in Indian market also makes it pertinent for managers to have proficiency in latest technologies so that they can gain an edge over other professionals. This course is designed to provide proper support to the students for better understanding of technology and its application in business today.

Evaluation pattern:

Quiz 10% Assignments / Projects 10% Class participation 10% Mid Semester Examination 30% End Term Examination 40% Pedagogy: Lectures Case study Minor projects Session Course Content Percentile weightage 1 - 4 Information Technology's Role in Business and its Basics 15% 5- 10 Identifying Competitive advantages through technology, Supportive 15% organizational structure for Strategic Initiatives 11 - 17 Strategic Initiatives using IT: SCM, CRM and ERP, Measuring the success of Strategic Initiatives 15% 18 - 25 Extending the organization, Building a Customer Centric Organization, Integrating Organization 15% 26 - 32 Organizational Information, Accessing Organizational Information, Creating Innovative Organizations 10% 33 - 41 Teams, Partnerships and Alliances, Building Software to support an agile organization, 15% 42 - 50 Outsourcing Development, Ethics in using IT, Emerging Trends and Technologies 15%

Text Book: 1. Business Driven Technology by Haag/Baltzan/Philips, 2nd ed Tata McGraw Hill Publication.

Reference Books: 1. Enterprise Systems for Management by Luvai Motiwalla, Guido Tabellini, Jeffrey Thompson, Pearson Education 2. e-Business 2.0 Roadmap for Success by Dr. Ravi Kalakota, Marcia Robinson, Pearson Education 3. Management of Information Technology by Carroll W. Frenzel and John C. Frenzel, fourth Edition, Thomson Press 4. E-commerce – A Managerial Perspective by P. T. Joseph, Prentic Hall India Publications. 5. Marketing of High-Technology Products and Innovations, 3/e by Jakki J Mohr, Sanjit Sengupta, Stanley Slater, Pearson Education.

16. COMPUTER APPLICATIONS

(Syllabus-1)

(This SEC paper is Open to All)

(CREDIT: 1 Theory+ 2 Practical)

UNIT 1: 3 hours

Word Processing: Introduction to word processing, creating and saving a document, paragraph formatting techniques, working with tables. Spreadsheet: Concept of worksheets and workbooks, creating charts and graphics in MS Excel, Power Point presentation: Creating Graphs, tables, charts, use of animation and multimedia.

UNIT 2: 4 hours

Database management system: Definition of Database, Traditional file approach vs DBMS approach, characteristics of the Data base approach, DBMS user, Role of a DBA, advantages and disadvantages of using DBMS, DBMS architecture. ER Model as a tool for conceptual design entities, attributes and relationships, weak and strong entities, conversion of ER model into relational schema. ANSI SQL-92 Standards: DDL, DML.

UNIT 3: 2 hours

System development life cycle: System models and types of models, system analysis, feasibility analysis, cost benefit analysis, payback period.

UNIT 4: 3 hours

TALLY: Basic definition of Tally, Features of Tally, Advantages and disadvantages of Tally, Tally accounting, manual accounting, and financial accounting.

Practical: 48 hours

- (i) Preparation of MS Word Document with various features (font, size etc)
- (ii) Preparation of MS Excel Document with various features.
- (iii) Preparation of PowerPoint presentation.
- (iv) Tally, ERP9 Install
- (v) GST in Tally. ERP9
- (vi) Interest calculation
- (vii) Bill of material
- (viii) Prepare profit and loss account, balance sheet.

Suggested Books:

1. Computer applications in business. R. Paraeswaram

2. Introduction to database management system. CJ Date

3. Tally ERP9 Training Guide- 4th Revised and updated edition. Ashok K Nadhani

(Syllabus-2)

COMPUTER APPLICATION COURSE

1. Total Marks = 100 (Practical 60+ Theory 40 Marks)

Syllabus-

Unit 1- Computer Basics (3 Lectures)
Unit 2- MS Office (5 Lectures)
Unit 3- Computer Repair and Maintenance (8 Lectures)
Unit 4- IT Fundamentals (6 Lectures)
Unit 5- Computer Network (3 Lectures)

COURSE OUTCOME:

On completion of this skill enhancement the student will-

- Familiarize with MS Office
- Perform documentation and Accounting Operations
- Student can learn how to perform presentation skills
- Can Maintain and repair computers

17. Data Collection and Presentation

By Ratnapith College

Credits: 4 Marks: 100

Course Outcomes:

This course helps students in understanding use of data, presentation of data using computersoftware like MS-Excel. Students will be involved practically to preparation of questionnaires/interview schedules, collection of both primary and secondary data and itspresentation. Students will also be asked to prepare a report on collected data and will be evaluated accordingly.

Course Outline:

1. Use of Data

Use of data in social sciences; types and sources of data; data collection methods. Population census versus sample surveys. Random sampling.

2. Questionnaires and Schedules

Meaning; how to prepare a questionnaire and interview schedule; use of questionnaire and interview schedule for data collection.

3. Presentation of Data

Data presentation in tabular formats; use of diagrams for data presentation; creating charts and diagrams in MS-Excel – bar, line, pie, scatter, radar, bubble diagrams, population pyramids.

Readings:

- 1. S P Gupta, Statistical Methods, S Chand.
- 2. Webtech Solutions Inc., Mastering Microsoft Excel Functions and Formulas

18. DEMOCRACY AND LEADERSHIP BUIDING

Course Objective:

- To learn the meaning, structure, challenges and conditions for the success of Democracy.
- To enable students to gain leadership qualities.
- To learn the value of public opinion in Democracy.
- To understand the implementation of 73rd amendment in practice.
- To study the women's participation in PRI.
- To make student understand the activities and responsibilities related to NSS and NCC.
- To learn the students the role of media in dissimilating information among the masses.

UNIT I: Understanding Democracy

- a. Meaning
- b. Features
- c. Kinds
- d. Conditions required for success of Democracy
- e. Challenges

UNIT II: Leadership

- a. Meaning and Theories.
- b. Qualities
- c. Importance
- d. Challenges

UNIT III: Democracy and Leadership

- a. Importance of Public Opinion
- b. Representation (73rd Amendment and rural Governance in India)
- c. Women's Participation
- d. Role of NCC and NSS in leadership building
- e. Role of Mass Media

READING LIST

NATIONAL SERVICE SCHEME MANUAL (REVISED), available at http://nss.wbut.ac.in/documents/NSS_manual_2006.pdf

ANO Handbook, NCC, Available at

https://docs.google.com/viewerng/viewer?url=http://nccindia.nic.in/sites/default/files/ ANO+Hand+Book 1.pdf

NirajaGopalJayalandothers,LocalGovernanceinIndia—DecentralisationandBeyond,OxfordUniversity Press, 2006. AtulKohli(Ed.).TheSuccessofIndia'sDemocracy.Cambridge:CambridgeUniversityPress.

Ghosh, Buddhadeb & Girish Kumar-State Politics and Panchayatsin India New Delhi: Manohar Publishers, 2003

Sudhakar, V. New Panchayati Raj System: Local Self-Government CommunityDevelopment-Jaipur: Mangal Deep Publications, 2002.

R. Erikson and K. Tedin, (2011) American Public Opinion, 8th edition, New York: Pearson Longman Publishers, pp. 40-46.

19. Early Childhood Care and Development

Skill Enhancement Course 6: Online Early Childhood Care and Education (Offered by the Department of Education)

Open for All

Total Credit =3(33 Hours)

Unit 1:

Physical, mental, and language development of early childhood period, Methods of study – observation, interview, case study, etc.

Unit 2:

Meaning of early childhood education, Objectives and importance of early, childhood education

Unit 3:

The curriculum of play way approach – Supporting early literacy, numeracy, and reading skills

Unit 4:

Pedagogy in relation to ECE – Constructing, modeling, questioning, and problem-solving

Unit 5:

Concept and importance of guidance for a child, Guidance methods for a child

20. Ecology and Environmental Management

By Ratnapith College

Credits: 4 Marks: 100

Course Outcomes:

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. Economic implications of environmental policy are also addressed.

Course Outline

1. Introduction

Basic concepts: Environment, Ecology, Economy and the ecosystem. Interaction between the environment and the economy, environmental economics and ecological economics, environmental economics and resource economics.

2. The Theory of Externalities

Externalities: meaning and types of externalities, market failure: meaning, market failure in the presence of externalities; market failure and public goods.

3. The Design and Implementation of Environmental Policy

Environmental Policies: command and control (CAC) approach, economic instruments like Pigouvian taxes and effluent fees, tradable permits and mixed instruments.

4. Environmental Improvements and Sustainable Development

Non-Market values: use and non-use values and optional value, Sustainable Development and its origin, weak sustainability, strong sustainability, ecological perspective and social perspective, Rules and indicators of Sustainable Development.

Readings:

- 1. Charles Kolstad, Intermediate Environmental Economics, Oxford University Press, 2nd edition, 2010.
- 2. Robert N. Stavins (ed.), *Economics of the Environment: Selected Readings*, W.W. Norton, 5th edition, 2005.



21. Electronic Circuit Design

Title: Electronic Circuit Design (Credit 2+1 =3)

Target Group: Open for all (Arts, Science and Commerce)

Course Objectives: To make the students able to apply concepts of basic electronic components and design Electronic circuits.

Course Outcomes: By the end of this course, students will be able to

- Explain basic structure, operation and characteristics of different electronic components (Both active and Passive).
- > Explainnumbersystemand logic gates.
- > Operation of combinational and sequential logic circuits.
- > Design of basic electronic circuits using analog and digital components.
- > Application of electronics components in real life situations.

Theory

Unit-I: Analog Electronics (11 Hours)

Basic Circuit Concepts: Resistors, capacitors and Inductors: Fixed and Variable, Construction and Characteristics, basic concept of current source and voltage source, semiconductors- P and N type, PN junction diode, Zener Diode and their I-V characteristics. Rectifiers- Half wave rectifier, Full wave rectifiers with working principle. Filter in electronic circuits, capacitor as a filter, zener diode as voltage regulator, design of regulated power supply. Bipolar Junction Transistor (BJT) and its types, structure, working principle and characteristics for different configurations, transistor as an amplifier and oscillator. OP-AMP and its applications. 555 timer and its applications.

Unit-II: Digital Electronics (11 Hours)

NumberSystems:Decimal,Binary,HexadecimalandOctalnumbersystems,LogicGates and Boolean algebra: Introduction to Boolean algebra and Boolean operators, Truth Tables ofOR,AND,NOT, XOR, NAND and NOR. De Morgan's theorems, minimization and realization of logic equations using Boolean algebra, Standardrepresentationoflogic functions(SOPand POS),MultiplexersandDemultiplexers,binaryAdders,Flip flops, S-R Flip flop, J-K Flip flop, T and D type flip flop, Basic concepts of Registers and Counters and applications.

PRACTICAL

<u>Unit-III: Hands on Tutorials / demonstration</u> (22 Hours)

- 1. Familiarization of different analog electronic components.
- 2. Use of multimeter to measure current, voltage and resistance.
- 3. Measurement of Amplitude and Frequency of a signal using CRO.
- 4. Toverifythe truth table of AND, OR, NOT, XOR, NAND and NORgates.
- 5. Realization of logic circuits from Boolean expressions.
- 6. Design of an electronic circuit in real life application.

Suggested Books

- 1. Principle of Electronic Devices and Circuits, B.L.Theraja & R.S.Sedha, S.Chand 7 Company Ltd(2004)
- 2. Robert L. Boylestad, Essentials of Circuit Analysis, Pearson Education (2004)
- 3. DigitalSystemDesign, M. Morris Mano, Pearson Education Asia, (Fourth Edition)
- 4. Modern Digital Electronics, R P Jain, McGraw Hill Education (India) Private limited.

22. Electronic Data Processing

Theory = 2 credit, Practical = 1 credit

Learning Objectives

Theobjective of the course covers fundamentals of Computer, data, spread sheets, data processing terminology, input or output, database management. Providing insight into method and tools for analysis and processing of the data generated by modern information systems, handling huge volume of data, qualitative and quantitative pieces of information, storage and retrieval of data and soon are the main feature of the course.

CourseOutcomes

On successful competition of the course, students will be able to understand basic terminology in the area of information system development and management, data analysis, data processingmethods. Students will also able to create SQL for extracting and grouping data from differenttypes of the database management system (DBMS). Students can work as a data entry operator, trainer, and teacher or MIS co-coordinator inschools or college.

Unit wise Syllabus

THEORY

UNITI - (5 hours)

INTRODUCTIONTOCOMPUTERANDDATAPROCESSING

Types of Computers, Characteristics and Applications of a Computer System, Component of Computer system: Input Units, Output Units, CPU, Computer Memory: Primary and SecondaryMemory; Memory Units; Hardware and Software, Number System: Binary Number System, Conversion, Binary Arithmetic.

DATA PROCESSING: Data, Importance of Data, Data Security, Information, Processing ofData, Data Processing Operations: Data Capture; Data Manipulation: Classification, Sortingand Calculations; Information Management, Information Handling Manual, EAM and EDPMachine.

UNITII - (5 hours)

INTRODUCTIONTOSPREADSHEETS

Introduction: What is Worksheet and Workbook, Features of spread sheets, Components of auser interface in spread sheet, AutoFill Feature, Formatting Numbers **Operators**: Arithmetic, Comparison and Logical Operators; Copying Formulae, Cell Referencing: Relative, AbsoluteandMixed Referencing

Functions: Sum, Average, Count, Max, Min, IF, Using Auto Sum

DataTables: Adding, Deleting, Importing, Exporting, Editing and Formatting

Data Management in Spread sheet: Importing Data from DBMS, Web and Text What-IfAnalysis: Scenario Manager, Goal Seek, Data Entry Forms, Sort and Filter, Data Validations, Conditional Formatting, Hyperlinks, Comments, Pivot Table UNITIII - (12 hours)

INTRODUCTIONTODATABASEMANAGEMENTSYSTEMCONCEPTS

WhatIsDatabase?NeedforaDatabase,ComponentsandLevelsofaDatabase,UseofComputerforDatabase,DatabaseManagement System,AdvantagesofusingDBMS,DatabaseExamples,RelationalDatabaseManagement System,

Case Study: A College— Data Redundancy and DataInconsistency,Data Storage Hierarchy,Characters, Fields, Records, Files, Concept of Keys: Primary, Foreign and Candidate Key DataTypes:Text,Memo,Number,Date/Time,Currency,AutoNumber,Yes/No,OLEObject,Hyperlink,Lookup Wizard, Fields, Records, File

Libre Office Base/MS Access etc.: Introduction to DBMS, Components of DBMS GUI, Icons and Views of Objects, Components of DBMS, Data Access Packages, Macros, Modules; Launching and Exiting of DBMS, Structure of a Table, Design View, Icons and Views, Table Navigation, FieldProperties: Size, Format, Decimal Places, Caption, Default Value, Allow Zero Length, Required, Input Mask, Record Validation, Lookup Values, Queries: Types of Queries, Relationships, Forms, Reports

PRACTICAL

1. SpreadSheets (11 Hours)

- a. Creating, saving and opening a Worksheet
- i. PayrollSheet
- ii. Sales-Report
- iii. BalanceSheet
- iv. Product, Purchase and Inventory
- b. Selecting cells and ranges, Adjusting Row Height And Column Width, Inserting BlankCells, Rows, Columns; Deleting: Cells, Rows, Columns;
- c. Dataentry(Numeric and Alpha); Erasing Datain Cells and Worksheet
- d. Dataverification
- e. DataAnalysisUsingCharts andWhat-IfAnalysis
- f. Formulaand Functions
- g. Makingcharts usingspreadsheets dataand
- h. View:Normal, PageLayout, Page BreakPreview, CustomViews, FullScreen, FreezePanes
- i. Copyingdatafromworksheetinto aWordProcessingDocument

2. DBMSlikeLibreOfficeBase/MSAccessetc. (11 hours)

- a. StartingandclosingDBApplications
- b. OpeningandClosinganalreadyexistingDatabase
- c. CreatingaDatabase:Usingthe DatabaseWizard, WithoutusingaDatabaseWizard
- d. Creating Tables and entering data into a table; Viewing and Editing Data in a Table;

- e. Freezeand UnfreezeColumns;Show orHideColumns
- f. Creatingformand enteringdataintoaform
- g. CreatingaQuery: UsingWizard
- h. CreatingaReport: EditingandDeletingofRecords
- i. CreatingMailMerge LabelsUsingWizard

References:

1.Spoken Tutorial- Spoken-

Tuitorial.org2.www.nieit.in

- $3.\ Geeta Sahoo\ and Gagan Sahoo, Informatics Practices (A textbook of Class XII). Saras wati \ House Pvt. Ltd.$
- 4. Mysql for Professionals, Ivan Bayross
- 5. Fundamentals of Database Management system, Elmasari Navathe.

23. Elements of Art and Design

--By Birina Das, DKGC

PAPER NAME: ELEMENTS OF ARTS AND DESIGN

TOTAL CREDITS: 3(1+2) 1= 1 hour theory per week, 2= 2 hours practical per week

ABOUT THE COURSE:

The fundamental goal of this course is to plan for development of the media and communication students that would help them to imbibe a sense of arts and design. Elements of arts and design shall give them a thorough understanding to work on various projects while abiding by the principles of designs.

OBJECTIVES:

The course is designed to:

- Introduce the elements of art.
- Educate on the principles of design.
- Acquire knowledge to utilize it in creating, designing and editing.

LEARNING OUTCOMES:

- Comprehensive knowledge on designing any multimedia product including print, electronic or traditional.
- Development of a keen eye for all art forms and design incorporated in media.
- Apply analytical thinking in designing.
- Communication of messages in artistic and accurate way.
- Appropriate presentation of any information.
- Effective use of color in creating, editing and designing.

COURSE OUTLINE:

Elements of Art and Design. (40+60)

| Unit No. | Unit Content |
|----------|--|
| Unit - I | Introduction to art; Elements of art; Types; Line, form, Texture, Space, Texture, Color, |
| | Value; |

| Unit - II | Art in Photography; Importance, Advantages, Uses; Uses of art in designing, | | |
|------------|---|--|--|
| | importance, Preparation of multimedia product by applying elements of art | | |
| Unit - III | Color wheel: Primary, secondary, tertiary; Color Scheme: Monochromatic, analogous, | | |
| | complementary, triadic, square and rectangle; Uses in photography and designing. | | |
| | Preparation of multimedia product by incorporating color schemes. | | |
| Unit - IV | Concept of design; Definitions; Principles of design, Types, Balance, Contrast, | | |
| | Emphasis, Proportion, Hierarchy, Rhythm, Movement, Unity, Pattern; Preparation of | | |
| | multimedia product by applying principles of design | | |
| Unit - V | Principles of design in photography; Importance, Uses, Advantages; Uses of principles | | |
| | of design in media product development, importance; | | |

24. ELT Skill-1



Department of English Language Teaching Gauhati University

FYUGP Year 1 Semester 1

Skill Enhancement Course (SEC)

Developing Soft Skills in English

| Total marks:100 | Nature of Course: | No. of Theory |
|-----------------|-------------------|----------------------------------|
| (External:80 + | Skill Enhancement | Credits: 3 |
| Internal: 20) | Course | No. of classes: 36 |
| (| (External:80 + | (External:80 + Skill Enhancement |

Medium of instruction: English(However, local languages will be used in the class along with English for ease of students' understanding.)

Course Description

This course enables students to develop effective soft skills and behaviours that are critical for success in today's competitive job market. It equips students with the essential soft skills that they need to create a positive impression about themselves for both professional and personal success. The key skills introduced in this course include active listening, communicating effectively in groups and use of appropriate body language. It also familiarizes students with presentation skills, and creative and critical thinking skills.

Graduate attributes/Learning outcomes

After completing the course the students will be able to:

- demonstrate their understanding of effective soft skills
- listen actively to interpret both verbal and non-verbal messages
- deliver effective presentations
- identify and solve a given problem by using creative and critical thinking skills
- participate in group discussions confidently

Pre-requisites

There are no prerequisites for this course.

Mode of delivery

Interactive lectures using class discussion, personalized topics, exercises and activities based on class texts and real-life language contexts, collaborative pair and group work, and sharing of feedback. Interactions and discussions can take place in blended mode, through face-to-face classroom teaching and online platforms such as Google Classroom.

Evaluation plan

This course will be assessed through an External(summative) of 80 marks and an Internal (formative) component of 20 marks.

The Internal assessment of 20 marks will be formative, and will be conducted throughout the semester through internal evaluation. It will comprise class assignments, home assignments, participation in class discussions, oral presentations etc. to measure how well students are learning.

Summative assessment will be conducted through a written External examination of 80 marks at the end of the semester to evaluate how far students are able to use the skills and strategies practised in the course.

Course Content

| Units | Topics | Teaching Hours |
|-------|---|-------------------|
| 1. | Making a good impression Good introduction Active listening Positive body language Good communication skills | 4 |
| 2 | Active Listening skills • Techniques to listen actively • Interpreting verbal and non-verbal messages | 5 |
| 3. | Delivering effective presentations Knowing your audience Speaking confidently: tone, pace Structuring your presentation Dealing with Q & A Using props and visual images | 10 |
| 4. | Creative and critical thinking Identifying the problem The problem solving process: brainstorming, analyzing, exploring, and choosing a solution | 6 |
| 5. | Group communication • Negotiation skills • Team building skills • Leadership skills | 8 |
| 6. | Body language Maintaining appropriate body posture in different communicative situations Using hand gestures effectively Maintaining eye contact during communication Proxemics | 3 |
| | Total Hours | 36 |

References:

Freeman, T. (2022). Soft Skills I Learned the Hard Way: Lessons in Communication, Public Speaking, Interviewing and Networking. Whack Publications

Raman, M., Upadhyay, S. (2017). Soft Skills: Key to Success in Workplace and Life. Cengage India Private Limited

Robbins. S.P. (2015). Training in Interpersonal Skills (6th Edition). Pearson

Walker, T. J. (2010). How to Give a Pretty Good Presentation: A Speaking Survival Guide for the Rest of Us. Wiley\

Course developers:

1. Dr Nivedita Malini Barua, Department of ELT, Gauhati University Email: nivedita.barua@gauhati.ac.in. Ph: 9864033267

2. Dr. Khamseng Baruah, Department of ELT, Gauhati University Email: khamseng.baruah@gauhati.ac.in. Ph: 9864018580

25. Field Survey: Techniques and Application

By Ratnapith College

Field Survey: Techniques and Application

Credits: 4 Marks: 100

Course Outcomes:

This course will help students to proceed with a research problem and the steps he/she should adopt and tools to be used for doing quality research, The students shall get a chance to observe ground reality directly and minutely, It will help to develop understanding about designing and writing a research

report

Course Outline:

Unit I: Meaning of Social Surveying; Need and importance of field work in socio-geographical studies

Unit II: Concept of case study and its identification in varying socio- geographical contexts

Unit III: Tools and Techniques of Data Collection: Questionnaire Survey, Participatory Rural Appraisal

Techniques, Participant Observation, Focus Group Discussions etc.

Unit IV: Preparation of a report on socio-economic condition of a nearby village and Seminar Presentation (Duration- 10 minutes per participant, which is to be monitored and evaluated by the

concerned experts)

Readings:

1) Creswell J., 1994: Research Design: Qualitative and Quantitative Approaches Sage Publications.

2) Dikshit, R.D. 2003. The Art and Science of Geography: Integrated Readings. Prentice - Hall of India,

New Delhi.

3) Mukherjee, Neela 1993. Participatory Rural Appraisal: Methodology and Application. Concept Publs.

Co., New Delhi.

4) Special Issue on "Doing Fieldwork" The Geographical Review 91:1-2 (2001)

26. Floriculture

Total lectures: 22T+22P Credits: 3 (Theory 2, Practical 1)

Theory

Unit I: Introduction: Importance and Scope of Floriculture, Types of floriculture, Landscape gardening (landscaping highways and institutions). (2 Lectures)

Unit II:Principles of garden designs: English, Italian, French, Persian, Mughal and Japanese garden, Features of Garden (gate, walls, fencing, hedge, pergolas, edging, shrubbery, water garden). (6 Lectures)

Unit III:Nursery management and Routine garden operations: Sexual and vegetative methods of propagation; soil sterilization, seed sowing, defoliation, manuring (3 Lectures)

Unit IV:Ornamental plants and their cultivation: Annual flowers, Perennial flowers, herbaceous plants, indoor plants, succulents and cactus, divine vines, palms and cycads, Bonsai (5 Lectures)

Unit V:Commercial floriculture: Cultivation of cut flowers (Chrysanthemum, marigold, dahlia, bougainvillea, rose, lilium, orchids), Production and packaging of cut flowers. (6 lectures)

Practicals

- 1) Preparation of media for propagation (soil, sand, peat, Sphagnum, moss, vermiculite, soil moisture and nursery beds) (3 Lectures)
- 2) Insect pest and diseases control of plants (3 Lectures)
- 3) Demonstrate the preparation of Bonsai of horticulture plants. (5 Lectures)

Suggested Readings:

1. Randhawa, G.S. and Mukhopadhyay, A. 1986. Floriculture in India. Allied Publishers. 77

27. Fundamentals of Disaster Management

--By Laharighat College

Unit-I: Introduction to Environmental Studies

- a) Multidisciplinary nature of environmental studies.
- b)Scope and importance.
- c)Concept of sustainable development.

Unit-II: Ecosystems.

- a) What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem; food chains, food web and ecological succession. Case studies of the following ecosystems.
- b)Forest ecosystem.
- c)Grassland ecosystem.

Unit-III: Biodiversity and Conservation.

- a)Levels of biological diversity; genetic, species and ecosystem diversity; biogeographic zones of India, biodiversity patterns and global biodiversity hot spots.
- b)India as a mage-biodiversity nation; endangered and endemic species of India.
- c) Ecosystem and diversity services: Ecological, economic, social, ethical, aesthetic and informational value.

Unit-IV: Human Communities and the Environment.

- a) Human population growth: Impacts on environment, human health and welfare.
- b)Resettlement and rehabilitation of project affected persons; case studies.
- c)Disaster management: floods, earthquake, cyclones and landslides.
- d)Environmental movements: Chipko, silent valley, Narmada Bachao, Bishnois of Rajasthan.
- e) Environmental ethics: Role of India and other religions and cultures in environmental conservation.
- f)Environmental communication and public awareness, case studies (CNG electric vehicles, green energy, waste minimization)

28. Fundamentals of Weather and Climate Sciences

Credits: 3 (Theory: 03)

Theory: 30 Lectures

Preferred minimum qualifications of the teacher/instructor: Assistant Professor of Physics with PhD in Atmospheric Physics.

The aim of this course is not just to impart theoretical knowledge to the students but to enable them to develop an awareness and understanding regarding the causes and effects of different weather phenomenon and basic forecasting techniques

Theory

Unit I: Introduction to atmosphere (Lectures 10)

Elementary idea of atmosphere: physical structure and composition; layers of the atmosphere; atmospheric boundary layerand its characteristics; variation of pressure and temperature with height; air temperature; requirements to measure air temperature; atmospheric pressure: its measurement; atmospheric convection and inversion.

Unit II: Measuring the weather (Lectures 4)

Wind; forces acting to produce wind; measurement of wind speed and direction; humidity, clouds and rainfall, radiation: absorption, emission and scattering in atmosphere; radiationlaws.

Unit III: Weather systems (Lectures 6)

Global wind systems; air masses and fronts: classifications; jet streams; local thunderstorms; tropical cyclones: classification; tornadoes; hurricanes, Indian summer, monsoon.

Unit IV: Climate and Climate Change (Lectures 10)

Climate: its classification; causes of climate change; greenhouse effect, global warming and its consequences; natural and anthropogenic causes of greenhouse effect, air pollution; aerosols, ozone depletion, acid rain, environmental issues related toclimate, outlines of United Nations Framework Convention on Climate Change (UNFCCC).

Reference Books:

- [1] Aviation Meteorology, I.C. Joshi, 3rd edition 2014, HimalayanBooks
- $\label{thm:continuous} \begin{tabular}{ll} \hline \end{tabular} The weather Observers Handbook, Stephen Burt, 2012, Cambridge University Press. \\ \hline \end{tabular}$
- [3] Meteorology, S.R. Ghadekar, 2001, Agromet Publishers, Nagpur.
- [4] TextBookofAgrometeorology,S.R.Ghadekar,2005,AgrometPublishers,Nagpur.
- [5] Why the weather, Charls Franklin Brooks, 1924, Chpraman & Hall, London.
- [6] Atmosphere and Ocean, John G. Harvey, 1995, TheArtemis Press.

29. Gender Sensitization

Rajiv Gandhi Memorial College, Lengtisinga

Department of Political Science

Skill Enhancement Course

Course objective:

The course will sensitize students to issues related to gender and its related concepts. It will provide them with the tools and skills to develop and integrate a gendered perspective in work and life.

Course outcomes:

The outcomes of the course may be as follows:

- Students will have developed a better understanding of important issues related to gender in contemporary India.
- Students will develop a sense of appreciation and respect for women in all walks of life.
- It will help students to understand violence against women and also at the same time aware them about the provisions in the Indian Constitution that provide protection and relief to women.

Unit-i: Introducing Sex and Gender

- a. Concept of sex and gender
- b. Nature and Scope of Gender studies
- c. Social construction of gender

Unit-ii: Basic Concepts

- a. Gender Socialization
- b. Gender Role
- c. Gender Inequality

Unit-iii: Gender in Social Institution

- a. Family
- b. Caste
- c. Class

Unit-iv: Violence against Women and its Indian Constitutional Provisions

- a. Sexual Harassment
- b. Domestic Violence
- c. Right to Property in Indian Constitution

Reference Books:

• Abbott, et.al. 2005. Introduction to Sociology: A Feminist Perspective, Routledge: London

- Holmes, M.2007. What is Gender? Its Approaches, Sage Publication: New Delhi
- Philcher, J and Whelehan, I. 2004. Fifty Key Concepts in Gender Studies, Sage Publication: New Delhi
- Jones, E.A. and Olson G.A. 1991. The Gender Reader, Allyn and Bacon: USA
- Hirschon, R. 1984 "Introduction: Property, Power and Gender Relations" in R. Hirschon(ed.) Women and Property, Beckenham: Croom Helm.
- Jaggar, A. 1983. Feminist Politics and Human Nature, Brighton: The Harvester Press.
- Engels, F. 1972. The Origin of the Family, Private Property and the State, London.

Syllabus 2 Gender Sensitization

By Ratnapith College

Course objective: this course will sensitize students to issues related to gender and its related concepts. It will provide them with the tools and skills to develop and integrate a gendered perspective in work and life.

Course outcomes:

- Students will have developed a better understanding of important issues related to gender in contemporary India.
- Students will develop a sense of appreciation and respect for women in all walks of life.
- It will help students to understand violence against women and also at the same time aware them about the provisions in the Indian Constitution that provide protection and relief to women.

Unit 1. Introducing Sex and Gender

- d. Concept of sex and gender
- e. Social construction of gender

Unit 2. Basic Concepts

- d. Gender Socialization
- e. Gender Role
- f. Gender Inequality

Unit 3. Gender in Social Institution

- d. Family
- e. Caste
- f. Class

Unit 4. Violence against Women and its Indian Constitutional Provisions

- d. Sexual Harassment
- e. Domestic Violence
- f. Right to Property in Indian Constitution

Reference Books:

- Abbott, et.al. 2005. Introduction to Sociology: A Feminist Perspective, Routledge: London
- Holmes, M.2007. What is Gender? Its Approaches, Sage Publication: New Delhi
- Philcher, J and Whelehan, I. 2004. Fifty Key Concepts in Gender Studies, Sage Publication: New Delhi
- Jones, E.A. and Olson G.A. 1991. The Gender Reader, Allyn and Bacon: USA
- Hirschon, R. 1984 "Introduction: Property, Power and Gender Relations" in R. Hirschon(ed.) Women and Property, Beckenham: Croom Helm.
- Jaggar, A. 1983. Feminist Politics and Human Nature, Brighton: The Harvester Press.
- Engels, F. 1972. The Origin of the Family, Private Property and the State, London.

30. Geography of Tourism

SEC Syllabus of FYUGP

(Gauhati University)

B.A 1st Semester By C K College, Chokla

Subject:- History

Course:-SEC Total Marks:-100
Course Level:- (External-50)

Course Title:- GEOGRAPHY OF TOURISM (Internel-50)

Unit 1

Introduction

- Definition of Tourism and Tourist
- Nature and Scope of Tourism
- Role of Geography in Tourism.
- Elements and Concepts of Tourism

Unit 2

- Geography of Northeast India.
- Tourism Attractions in Assam, Arunachal - - Pradesh, Meghalaya.
- Indian Heritage Tourism Planning.

Unit 3.

- Principles of Management.
- Tourism Planning.
- Financial Management.
- Marketing Tourism.

Unit 4

- Introduction to Tourism Organisations.
- -Tourism operations Human Resource

Development.

- Role of human resources in the tourism industry
- Economics of Tourism.

Unit 5.

- Environmental impact of tourism.
- Environmental impacts of eco tourism.
- Positive and negative impacts of tourism on

31. Grammar and Composition Skills

PROPOSED SKILL ENHANCEMENT COURSE FOR DEPARTMENT OF ENGLISH, RAJIV GANDHI MEMORIAL COLLEGE

Course objectives: The objectives of the course are to expose the students to the basic that they require in their day-to-day academic setting at the under graduate level, the grammar is introduced in context through the Text and further practices is providing through exercises. The course also helps students sharpen their reading and writing skills.

Course Outcome: The Course outcome of the English Grammar and Composition are as follows,

- 1. It helps the students produce grammatically correct English.
- 2. To develop writing skills for the academic work.
- 3. Exposes them to the variety of reading text
- 4. To give them in writing exercise.

Unit-1

Introduction to the basic grammar.

- 1. Tenses
- 2. Modals
- 3. Determiners, pronouns, and Noun phrases
- 4. Preposition, Adjectives and Adverbs
- 5. Verb structure
- 6. Word Formation
- 7. Conditional, clauses, question, Indirect speech
- 8. Sentences and variety of English

Unit 2 Reading

- 1. Prediction and Previewing skill.
- 2. Skimming skill
- 3Reading for comprehension
- 5. Reading for details

Unit 3 Reading

- 1.Application Writing.
 - 2. Precise writing
 - 3. Comprehensive Test.
- 4. Letter writing.

Reference Book

1. A Higher English Grammar and Composition by P.K. Dey Sarkar

- 2. Good English Grammar and Composition by Assam publishing company
- 3. Modern English Grammar by Assam Publishing Company

Syllabus 2

DEPARTMENT OF ENGLISH

GRAMMAR AND COMPOSITION SKILLS

CREDITS- 2 TOTAL MARKS- 100

By- Ratnapith College

COURSE OBJECTIVES- English grammar is an essential component of competitive exams, as it tests the candidates' understanding of the language and their ability to communicate effectively. The course aims to help participants develop their English language skills, particularly those planning to appear for competitive exams that test their English language abilities. During a span of 90 days, students will be exposed to material that facilitates aspects of grammar, writing and vocabulary.

- UNIT-1: Grammar- Basics of tenses, speech and English Spotting Errors, prepositions
- UNIT-2: Sentence Completion / Rearrangement
- UNIT-3: Reading comprehension.
- UNIT-4: Vocabulary- Foreign Expressions Idioms and Phrases, antonyms & synonyms
- UNIT-5 Letter Writing (Formal and Informal), Precis/ Essay writing, Story Writing

SUGGESTED READINGS

- 1. F T Wood: A Remedial English Grammar for Foreign Students. (Macmillan)
- 2. R.P.Bhatnagar and Rajul Bhargava: English for Competitive Examinations (Macmillan)

32. Herbarium Techniques and its role in Modern Science

Name of the Paper: Herbarium techniques and its role in Modern Sciences

Total Lectures: 36 Credits: 3

THEORY

UNIT 1:Introduction- Historical account, Significance, Functions, Types of Herbaria, Acronym, important Herbaria of the world, major Herbaria in NE India, Digital Herbarium.

(4 lectures)

UNIT 2:Herbarium Methodology-Herbarium Sheets, Field and Laboratory equipment, colour preservation techniques, basic techniques for herbarium sheets preparation and storage.

(6 lectures)

UNIT 3:Role of Herbarium in- Teaching and Research, Plant Taxonomy, Assessment of Plant Biodiversity, Pharmacy Education and Research, Herbal Drug discovery, Ecology, Forestry, Ethnobotany, Evolution and Conservation biology. (8 lectures)

UNIT 4:Herbarium curation and Digitization techniques, Accession Register, Fumigation, Pest Management, Herbarium specimens on Loan, Herbarium Ethics. (6 lectures)

UNIT 5:PRACTICAL (12 lectures)

Hands-on-Herbarium sheet preparation for Bryophytes, Pteridophytes and Higher Plants. Searching Digital Herbarium online for consultation.

Suggested Readings:

1. Jain S K and Rao RR 1977. A Handbook of Field and Herbarium Methods. Today & Tomorrow's Printers and Publishers, New Delhi.

33. Life Skill Education

--By Nabajyoti College Kalgachia

Four year Undergraduate programe (FYUGP) 1st Semester

Subject: Education

Course:SEC TotalMarks-100
CourseLevel:100-199 (External-50)

Course Title: LIFESKILL EDUCATION (Internal-50)

Credit-4

Part-I (External)-2 Credit-2

B) <u>Paper Objectives</u>: The overall objectives of this paper is to help student explore their abilities for effectively dealing with the demand and challenges of life. It is to bring together the social, emotional and cognitive capacities of students to enable them to effectively handle issues and problems commonly faced in daily life.

This paper aims at realizing the following general objectives-

- 1) To promote students ability to help grow fully from inside out and outsidein.
- 2) To increase emotional competency and emotional intelligences atWorkplace.
- 3) To provide grounds for practicing various skills related to daily lifeexperience.
- 4) To help manage competency for achieving excellence in interpersonal skill witherhical considerations.

B) Learning outcome:

After completing the subject, the student will be able to attain the following out comes:-

- 1) Self confidence.
- 2) Professional competence.
- 3) Good citizenship and sense of socialcompetence.
- 4) Self-reliance.

Unit-1

Meaning, nature and concept of life skilleducation.

Objective purpose needs of life skilleducation.

Types of life skills.

Practicing life skills (Methods of life skillteaching).

Assessment of lifeskill.

Unit-2

Communication skills-listening, speaking, reading, writing, digital literacy use of social media, non verbal communication.

Professional skills- career skills, team skills, resume, interview, group discussion, exploring career opportunities, presentation skill, social and cultural etiquette, internal communications, collaboration, brainstorming.

leadership and management skills:- leadership quality, leadership practice inschool.

Part-2 (Practical) Credit-2

The department will arrange for practicing any one or more life skill activities by the students which will carry 50 marks as internal.

34. Mushroom Cultivation Technology (Syllabus 1)

Mushroom Culture Technology and Production

Total Duration: 55hrs Credits: 3 (Theory:1, Practical:2)

Learning Objectives:

To make student aware about

- The diversity and identification of Mushrooms growing in this N.E. region.
- Mushroom growing Techniques.
- Medicinal and Nutritional value of mushrooms
- Low cost input in mushroom cultivation but benefit outcome is high.

LearningOutcomes:

- After completion of the course, student will be able to identify and practice the technique for cultivation of various types edible mushrooms.
- It will help to encourage self-employment by setting up small scale unit for mushroom cultivation.

THEORY (1 CREDITS)

UNIT 1 (2 lectures)

Introduction of mushroom fungi, characteristics and classification types, different types of mushrooms available in India and N.E. regions, Edible mushrooms (*Pleurotus, VolvariellaAgaricus*), Poisonous mushrooms (*Amanita, Cortinarius, Psilocybe*), nutritional and medicinal importances of mushrooms.

UNIT 2 (4 lectures)

Methods and preparation of culture of mushrooms, methods of culture preparation, spawn and spawning: forms of spawns (Liquid and substrate/grain spawn), preparation of spawn, mother spawn, spawn formulations and commercial spawn, problems in spawn production, diagnostics and solution, method of spawning.

UNIT 3 (5 lectures)

Compost and composting: Methods of composting, quality of good compost; Casing and casing material used in used in mushroom cultivation.

Economic of spawn and mushroom production, post-harvest technology, Processing and value addition, mushroom cultivation and agri-preneurship, Government policies related to the promotion of mushroom cultivation.

PRACTICAL (2 CREDITS)

- 1. To study the principle and functioning of instruments used in the various techniques.
- 2. Preparation of various type of compost and media
- 3. Method of culture preservation
- 4. Quality testing of compost
- 5. To study various types of casing and casing material
- 6. Preparation of spawn & spawning
- 7. Technique for cultivation of edible mushrooms
- 8. To study the nutritional, market value, post-harvest technologies like packaging and preservation
- 9. To study the various requirement for setting up a mushroom cultivation unit (Kuccha or cemented house)
- 10. Visit to institute and cultivation center.

Suggested Readings:

- 1. Aggarwal, A., Sharma, Y.P., Angra, E. (2021). A textbook on mushroom cultivation, Theory and Practices. Newrays Publishing House, 2021.
- 2. Tiwari, S.C. Kapoor, P. (2018). Mushroom Cultivation. Mittal Publications. ISBN 9788183249232.
- 3. Bahl, N. (2015). Hand Book on Mushroom. Page no. 1-166. Oxford &IBH Publishing Company. ISBN-13:978-8120413993.
- 4. Russell, S. (2014). The Essential Guide to Cultivating Mushroom. Storey Publishing. North Adams, MA 01247-page no. 1-233. ISBN 978-1-61212-146-8.
- 5. Chang, S.T. Miles, P.G. (2004). Mushrooms Cultivation, Nutritional Value, Medicinal effect and Environmental Impact. Page no. 1-477, CRC Press.
- 6. Rai, R.D., Arumuganathan, Y. (2008). Post-harvest technology of mushrooms. Pages 172. National Research Center for Mushroom (Indian Council of Agricultural Research) Chambaghat, Solan-173 213 (HP)
- 7. Ahlawat, O.P., Tewari , R.P. (2007) .Cultivation Technology Of Paddy Straw Mushroom (*Volvariellavolvacea*). Pages 1-44 National Research Center for Mushroom (Indian Council of Agricultural Research) Chambaghat, Solan (HP).

(Syllabus 2) Mushroom Cultivation Technology

---byBhaben Tanti,GU

Credits: 3

Learning objectives:

- ❖ Understand the basics of mushroom by enabling students to identify edible and poisonous mushrooms
- ❖ Develop interest in mushroom cultivation
- ❖ Provide hands on training for the preparation of spawn and mushroom bed for mushroom cultivation
- ❖ Learn various post-harvest technology associated to mushroom cultivation
- ❖ Identify and manage Insect-Pests affecting mushroom
- ♦ Help the students to learn a means of self-employment and income generation

Learning outcomes:

On successful completion of the course, students will be able to:

- ❖ Identify edible and poisonous mushrooms
- ❖ Gain the knowledge of cultivation of edible mushrooms and spawn production; and various postharvest technology associated to mushroom cultivation
- ❖ Manage various diseases and pests of mushrooms
- ❖ Learn the way of self-employment and income generation

THEORY

Unit 1: Introduction to mushrooms

Mushrooms - taxonomic rank. Different parts of typical mushroom; structure and texture of fruitbodies - Gilled fungi and pore fungi; Life cycle of mushrooms; various habitats of mushrooms - Lignicolous, Humicolous and Coprophilous; Symbiotic associations - Mycorrhiza.

Unit 2: Cultivation of Mushrooms

History, scope, and opportunities of mushroom cultivation. Problem in cultivation - diseases, pests, and nematodes and their management strategies.

Unit 3: Health benefits of mushrooms

Historical uses of mushrooms; Nutrient profile of mushrooms - Amino acids, Protein, Carbohydrates, fats, minerals, and vitamins; Therapeutic aspects - antioxidant, antimicrobial, antidiabetic, anticancer effect; stimulating vitamin D production in mushrooms.

Unit 4: Common edible and poisonous mushrooms

Edible Mushrooms - Oyster mushroom (*Pleurotus ostreatus*), paddy straw mushroom (*Volvariella volvcea*), Button mushroom (*Agaricus bisporus*); Poisonous mushroom – False parasol or green-spored parasol (*Chlorophyllum molybdites*).

Unit 5: Principles of mushroom cultivation

Structure and construction of mushroom house; Spawn production - culture media preparation, isolation of pure culture, mother spawn, multiplication of spawn; Sterilization of substrates. Composting techniques, mushroom bed preparation; Spawning, spawn running, harvesting. Cultivation of oyster mushroom.

Unit 6: Post harvest technology

Preservation of mushrooms - freezing, drying, and packaging, quality assurance, shelf life, market opportunities. Value added products of mushrooms.

PRACTICAL

- 1. Preparation of media for mushroom culture
- 2. Preparation of pure culture
- 3. Production of spawn
- 4. Cultivation of oyster mushroom using paddy straw/lignocellulosic wastes.
- 5. Estimation of antioxidant properties (Reducing power, Total antioxidant capacity) and phytochemical content (phenol, flavonoid, lycopene, β-carotene) of mushroom

Suggested Readings

- 1. Purkayastha RP, Chandra A (1985) Manual of Indian edible Mushrooms. Today and Tomorrows Printers and Publishers, New Delhi.
- 2. Pathak VN, Yadav N (1998) Mushroom Production and Processing Technology. Agrobios, Jodhpur.
- 3. Tripathi DP (2005) Mushroom Cultivation. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
- 4. Pandey RK, Ghosh SK (1996) A Hand Book on Mushroom Cultivation. Emkey Publications.
- 5. Hait G (2023) Introductory Botany (Biofertilizer and Organic Farming, Herbal technology, Mushroom Culture Technology). Vol I, Global Net Publication, New Delhi.
- 6. Pathak VN, Yadav N, Gaur M (2000) Mushroom Production and Processing Technology. Vedams Ebooks Pvt. Ltd., New Delhi.

35. Non-Mulberry Sericulture

Skill enhancement course N0N-MULBERRY SERICULTURE

Code:

Credit: 2(T) + 1(P)

Course Objectives:

Sericulture is an agro-based, labour-intensive, eco-friendly industry bearing immense potential of employment generation. In North-Eastern part of India, all the four commercially important silkworm varieties are found of which the non-mulberry silkworms particularly eri and muga silkworms are endemic to this region. The objectives of the course are to apprise the students about the biology, rearing techniques, constrains of rearing in terms of disease occurrences, causes and precautions of diseases, and employment opportunities of non-mulberry sericulture. The aim is to make students competent to venture in sericulture industry by their own or through different state and central organizations and or pursuing higher studies in different research laboratories.

Course Learning Outcome:

Upon completion of the course, students should be able to:

- Understand the biology and rearing techniques of non-mulberry silkworms
- Acquire practical skill of identifying of non-mulberry silkworms, and their diseasecausing pathogens and or pests.
- Develop curiosity and awareness about different fields of entrepreneurship in sericulture sector and to help venture in self-employment program.
- Develop competitive expertise to enter in state and central sericulture organizations as well as research laboratories for higher studies.

Skill enhancement course

NON-MULBERRY SERICULTURE

Code:

Credit: 2(T) + 1(P)

THEORY Hours 30

Unit 1: Biology of Non-mulberry Silkworm, Pest & Diseases:

12h

Types and distribution of non-mulberry silkworms in N-E India; Life cycle of non-mulberry silkworms- Eri and Muga; Structure of silk gland; Pests of eri and muga silkworms; Pathogenesis of protozoan, viral, fungal and bacterial diseases of eri and muga silkworms, Prevention and control measures of pests and diseases

Unit 2: Rearing of Silkworms (Eri and Muga Silkworm):

12h

Food plants of Eri and Muga Silkworm; Rearing Operation:Rearing house or site and rearing appliances; Disinfectants: Formalin, bleaching powder; Rearing technology: Early age and Late age rearing; Environmental conditions in rearing-Temperature, Humidity, Light and Air; Types of mountages; Harvesting and storage of cocoons; Spinning and Reeling of silk

Unit 3: Entrepreneurship in Non-Mulberry Sericulture:8h

Nature of Silk; Varieties of Non-Mulberry Silk products and economics in India; Prospectus of Non-Mulberry Sericulture in India: Non-Mulberry Sericulture industry in different states, employment generation and potential; Visit to various sericulture Govt. /Private Farm/Centres.

NON-MULBERRY SERICULTURE

PRACTICAL Hours 15

- 1. Identification of Non-Mulberry Sericigenous insects.
- 2. Study the various stages of Life cycle of silkworms- Eri and Muga.
- 3. Identification of various equipment used in rearing of Silkworms.
- 4. Identification of various diseases of Eri and Muga.
- 5. Locate the position of silk gland and its structure.
- 6. Visit to various sericulture Govt. /Private Farm/ Centres (Report).

Suggested Readings:

- 1. Jolly, M. S., S. K. Sen, T.N. Sonwalkar and G.K. Prashad 1979. Non-Mulberry Sericulture. In:
 - Manual of Sericulture, Rome, FAO, 4 (29)
- 2. Chowdhury, S.N. 1981. Muga Silk Industry. Directorate of Sericulture, Govt. of Assam, Guwahati781005,

Assam.

- 3. Chowdhury, S.N. 1982. Eri Silk Industry. Directorate of Sericulture, Govt. of Assam, Guwahati781005, Assam.
- 4. Chowdhury, S.N. 1992. Silk and Sericulture. Directorate of Sericulture and Weaving, Govt. of Assam, Guwahati-781005, Assam.

36. Nursery and Gardening **DEPARTMENT OF BOTANY**

NABAJYOTI COLLEGE, KALGACHIA FYUGP 2023 Nursery and Gardening (SEC)

Credits:4

- **Unit 1:** Nursery: definition, objectives and scope and building up of infrastructure for nursery, planning andseasonal activities Planting direct seeding and transplants.
- **Unit 2**: Seed: Structure and types Seed dormancy; causes and methods of breaking dormancy Seed storage: Seed banks, factors affecting seed viability, genetic erosion Seed production technology seed testing and certification.
- **Unit 3:** Vegetative propagation: air-layering, cutting, selection of cutting, collecting season, treatment of cutting, rooting medium and planting of cuttings Hardening of plants green house mist chamber, shed root, shade house and glass house.
- **Unit 4:** Gardening: definition, objectives and scope different types of gardening landscape and home gardening parks and its components plant materials and design computer applications in landscaping Gardening operations: soil laying, manuring, watering, management of pests and diseases and harvesting.

Unit 5: Sowing/raising of seeds and seedlings - Transplanting of seedlings - Study of cultivation of different vegetables: cabbage, brinjal, lady's finger, onion, garlic, tomatoes, and carrots - Storage and marketing procedures.

37. Ornamental Fish and Fisheries

--By Nabajyoti College Kalgachia

GU FYUGP-2023 Sub: ZOOLOGY SKILL ENHANCEMENT COURSES Ornamental Fish & Fisheries

Credit-4

- 1. Ornamental Fish Diversity of North East India.
- 2. Aquarium plant diversity in the wetland of Assam.
- 3. Construction and management of Home Aquarium.
- 4. Natural feed of Ornamental Fish
- 5. Strategies for maintenance of natural colour of Ornamental Fish
- 6. Natural Breeding of Tricogaster species
- 7. Health management of Ornamental Fish
- 8. Feed formulation of Ornamental Fish
- 9. Development of Biological filtration in Aquarium
- 10. Pure culture of planktons

Practical's

- 11. Identification of Ornamental Fish
- 12. Culture of Indigenous ornamental fish in Aquarium
- 13. Estimation of Physico-chemical characteristics of Aquarium water
- 14. Biological filter for removal of Ammonia from Aquarium
- 15. Culture of Planktons

38. Panchayati Raj and PracticeSkill Course

--By Ratnapith College

Course Objective: This course acquaints students with the Panchayati Raj Institutions and their actual working. It further encourages a study of Panchayati Raj Institutions in their mutual interaction and their interaction with the people.

Course Outcomes:

- This paper will help students to understand the importance of grass root political institutions in empowering people.
- This paper will highlight the complex challenges faced by Panchayati Raj Institutions in India and mechanisms involved to make it more participatory and inclusive in nature.

Unit 1. Introduction of Panchayati Raj System

- a. Definition of Panchayati Raj System
- b. Evolution of Panchayati Raj in India and its importance
- c. Devolution

Unit 2. Provisions of Panchayati-Raj System in Indian Constitution

- a. Role of 73rd Amendment Act of Panchayati-Raj System in India
- b. Constitutional Provisions on Panchayat Finances
- c. Fiscal Decentralization and Audit System

Unit 3. Problems and Needs of Disadvantaged Groups and their Participation

- a. Women
- b. Scheduled Tribes, Scheduled Castes and Minorities
- c. Panchayat Extension to Scheduled Areas (PESA) Act

Modalities for Practical Component: project Report/Field Study Report based on any activity i.e., visit to Panchayat / local self-bodies, local people's participation in the political system etc.

Reference Books:

- P. Dsouza, (2002) 'Decentralization and Local Government: The second Wind of Democracy in India', in Z. Hasan, E. Sridharan and R. Sudarshan (eds.) India's living Constitution: Ideas, Practices and Controversies, New Delhi: Permanent Black
- M. John, (2007) 'Women in Power? Gender, Caste and Politics of Local Urban Governance', in Economic and Political Weekly, Vol.42(39)
- Raghunandan, J.R (2012) Decentralization and local governments: The Indian Experience, Orient Black Swan, New Delhi
- Baviskar, B.S and George Mathew (eds) 2009 Inclusion and Exclusion in Local governance: Field Studies from rural India, New Delhi, Sage
- M.Venkatarangaiya and M. Pattabhiram- Local Government in India, Allied Publishers-1969 SR Maheswari, Local Government in India, Lakshmi Narain Agarwal, 2008.
- Bidyut Chakraborty and Rajendra Kumar Pandey, Modern Indian Political Thought- Text and Context, Sage, New Delhi, 2009

Syllabus 2

-- By Nabajyoti College Kalgachia

GUFYUGP2023,Skill Course(SEC)

Subject: Political Science

Paper: Skill Enhancement Course(SEC)

Panchayatirajand Practice

UNIT.1-

Democratic Decentralization, Grassroots Democracy and Grassroots Political institutions in empower in gPeople.

- 1.1-Meaningand concept of democratic decentralization and grassroots democracy and grassroots political institutions.
- 1.2-Democratic function of Grassroots Political institutions in the Empowerment of people.
- 1.3-TheoryandPracticeofgrassrootsDemocraticPoliticalinstitutions-

Thereal assessment and Evaluation of the functioning of grassroots Democratic political institutions in the interest of empowering people.

UNIT2.

- 2.1 Grassroot Democratic Political institutions in India-The Panchayotira j system
- 2.2. Evolution, Genesis and Development of Panchaytiraj system in India.
- 2.3-Structures and function of Panchayatiraj system in India. UNIT3.
 - 3.1-Democratic functioning of Panchayatiraj system in the empowerment of weaker and disadvantaged groups of people.
 - 3.2-PoeplesparticipationinPanchayatirajsystem- Assessment of Panchayatiraj System, participatory and inclusive nature
 - 3.3-Contribution of Panchayatiraj system in empowering and upliftment of theweaker section of people-An assessment of the proper democratic functioning of Panchayatiraj to empower the people.

39. Philosophical Counseling

--By Nabajyoti College Kalgachia

Skill Enhancement Course (SEC) Department of Philosophy Philosophical Counseling Total Marks: 100

Part A: (Theory) Marks 50

Unit I. Introduction to Philosophical Counseling:

25

- a) Philosophical Counseling-its meaning, scope and importance
- b) History of Philosophical Counseling
- c) Philosophical Counseling and Psychological Counseling
- d) Freedom, responsibility and self-determination

Unit II. Approaches to Philosophical Counseling:

25

- a) Critical thinking approach- Logic based therapy (LBT)-Philosophical principle of LBT, LBT fallacies
- b) Wisdom approach
- c) Existential approach-Existentialism based therapy-) Authentic Life and) Inauthentic Life

Part B (Practical) Marks 50

- Project/Dissertation
- Given below is the list of problems out of which any one may be chosen for addressing in the project/dissertation.
- Moral issues
- Value disagreements
- Time management issues
- Financial issues
- Career issues
- Adult children of aging parents
- Problems with family
- Friendship issues
- Breakups and divorce
- Religion and Race related issues

Syllabus 2

Philosophical Counseling

Department of Philosophy

Syllabus

- 1. Introduction, General Counseling, Definition and meaning, nature and scope
- 2. What is Philosophical counseling, Philosophical Activities
- 3. Bhagavat Gita, Emotional stability, idea of Samatvam, non soul theory of Buddhism and suffering, Buddhism of self realization
- 4. Yoga theory of eight paths, Gandhi's Practical non-violence, Vivekananda- Four Yoga

40. Photo Journalism

Unit 1 – Basics of Photography, Difference between photography and Photo journalism, Photography, Understanding journalism through photography, Five W's and one H.

Concept and history of photojournalism, Photo Journalism across the globe, Impact of photo Journalism, Understanding news photography, wildlife photography, fashion photography, studio photography, candid photography, travel and lifestyle photography, Development journalism through photography, Role of a Photo Editor: Different aspects of photojournalism

Unit 2 –Basics of photo editing- adjusting brightness, contrast, color,resolution, crop

Developing captions, Writing and Editing Captions for Still, Accuracy, Spelling, Edit the Captions,

Roles and responsibilities of a photo journalist

Unit 3 – Practical

Should be given assignment for collecting photos with news element using mobile phones, should be given task of photo composition and photo caption writing, additional marks for publication at any media outlets (WebPages, newspapers, magazines or photo blogs).

Key Reading

- 1. Photojournalism: Telling Stories with Pictures and Words: Volume 1
- 2. Associated Press Guide to Photojournalism (Associated Press Handbooks)
- 3. Photojournalism: The Professionals' Approach Paperback
- 4. National Geographic Photography Field Guide 2nd Edition: Secrets to Making Great Pictures (NG Photography Field Guides) Paperback by Peter Burian (Author), Bob Caputo (Author)
- 5. Practical Photojournalism: A Professional Guide

41. Photoshop

DEPRTMENT OF PHYSICS NABAJYOTI COLLEGE, KALGACHIA FYUGP 2023 SKILL COURSE SYLLABUS

Photoshop (20 Lectures)

1. Introduction (4Lectures)

Openandcreatenewimages, Theinterface, Zoominandoutandpanaround, Toundo, Save animage

2. Image editing (2 Lectures)

Resize an image, Image resolution, Crop and straighten an image, Canvas size adjustments

3. Work with layers (2Lectures)

ViewandselectlayersintheLayerspanel,WorkwithlayersintheLayerspanel,Resize layers, Add images to design, Backgroundlayer

4. Image quality (2 Lectures)

Image exposure, Color vibrance, Hue and saturation of colors, Work with adjustment layers

5. Make selections (2Lectures)

Make a selection to edit part of an image, Selection tools, Select and mask workspace

6. Retouch images (1Lectures)

Remove objects, Clone stamp tool, Remove objects with content-aware fill

7. Use color (2Lectures)

Brush tool, Foreground and background color boxes, Color picker

8. Text and shapes (2Lectures)

Add and edit text, Create a shape (pre-defined and custom)

9. Combine images (2Lectures)

Add texture to an image, Add an object to an image using a layer mask, Use a layer mask to hide a background

10. Apply filters (1Lectures)

Use of filter gallery, Use of Smart Filter

42. Physics Workshop Skills

Credits: 3 (Theory: 2, lab: 1)

Theory: 20 Lectures

Preferred minimum qualifications of the teacher/instructor: Assistant Professor of

Physics or a B.E/B.Techin MechanicalEngineering

The aim of this course is to enable students to get familiar with various mechanical and electrical tools in hands-on mode

Unit I: Introduction (4 Lectures)

Measuring units. conversion to SI and CGS. Familiarization with meter scale, Vernier calliper, Screw gauge and their utility. Measure the dimension of a solid block, volume of cylindrical beaker/glass, diameter of a thin wire, thickness of metal sheet, etc. Use of Sextant to measure height of buildings, mountains, etc.

Unit II: Mechanical Skill (6 Lectures)

Concept of workshop practice. Overview of manufacturing methods: casting, foundry, machining, forming and welding. Types of welding joints and welding defects. Common materials used for manufacturing like steel, copper, iron, metal sheets, composites and alloy, wood. Concept of machine processing, introduction to common machine tools like lathe, shaper, drilling, milling and surface machines. Cutting tools, lubricating oils.

Unit III: Electrical and Electronic Skill (4 Lectures)

Use of Multimeter. Soldering of electrical circuits having discrete components (R, L, C, diode) and ICs on PCB. Operation of oscilloscope. Making regulated power supply. Timer circuit, Electronic switch using transistor and relay.

Unit III: Introduction to prime movers: (6 Lectures)

Mechanism, gear system, wheel, Fixing of gears with motor axel. Lever mechanism, Lifting of heavy weight using lever, use of pulley, braking systems, working principle of electrical power generation systems.

Lab:

- 1. To study the use of meter scale, vernier caliper, screwgauge.
- Tomeasuredimension of solidblock,volumeofcylindricalbeaker/glass,diameterofthinwire,thicknessof metalsheet.
- 3. To measure height of building, mountain usingsextant
- 4. To study the use of digital multimeter and CRO.
- 5. To do soldering of electrical circuit having discrete components on PCB.
- 6. To construct a regulated powersupply with capacitor filter.
- 7. Demonstration of lifting of heavy weight usinglever

Reference Books:

- [1] A text book in Electrical Technology-B L Theraja S. Chand and Company.
- [2] Performance and design of AC machines M.G. Say, ELBSEdn.
- [3] Mechanical workshop practice, K.C. John, 2010, PHI Learning Pvt.Ltd.
- [4] Workshop Processes, Practices and Materials, Bruce J Black 2005, 3rd Edn., Editor Newnes [ISBN: 0750660732]
- [5] NewEngineeringTechnology,LawrenceSmyth/LiamHennessy,TheEducationalCompany ofIreland[ISBN: 0861674480]

43. Political Institutions and its practices in India

Target Group: Open For All (Arts, Science and Commerce)

Theory = 2 Credit, Practical = 1 Credit

Learning Objective:

The learning objectives of this course are:

- (1) To facilitate students in analyzing and evaluating concepts, institutional practices of governance in India to assess their relevance and impact on societies.
- (2) It also fosters an understanding of active engagement in political processes and democratic principles thereby advocating the importance of participation in collective decision making.
- (3) This course would also enhance the intersection of political Science with other disciplines towards a holistic understanding of public discourse.
- (4) This will further the need for reasoned judgment and accountability of political office bearers towards a broader understanding and vibrant citizenry.
- (5) To understand the functioning and the role of a modern nation state

Course Outcomes:

- 1. The course is designed to sensitize and equip students with a better understanding of the functioning and working of the political institutions of the country.
- 2. The students will acquire knowledge of their representatives in the institutions and their accountability to the people.
- 3. It will give a comprehensive idea of the state structure and the mannerism in which the Indian State befits itself as an institutional set-up.
- 4. The course is designed for students preparing for Civil Services, Law and other Allied Services of the State or Central Government.

Unit wise Syllabus:

THEORY

UNIT I-(8 Hours)

Union Parliament: Structure, role and functioning, Parliamentary Committees, President of India.

Legislature in the States: Governor, State Legislature, role and functioning.

Local Government Institutions: Rural and urban local government, 73rd and 74th constitutional Amendment Acts, 11th and 12th Schedule of the Indian Constitution. (12 Classes)

UNIT II- (5 Hours)

Judiciary: Supreme Court, High Court, Judicial review, Judicial Activism, PIL. (10 classes)

UNIT III-(5 Hours)

Constitutional and Statutory Bodies in India: ECI, UPSC, SPSC, NHRC, SHRC, CVC, NGT (12 Classes)

UNIT IV-(4 Hours)

Federalism: Strong Centre Framework, Asymmetrical Federal Provisions, Inter-State council, Union-state relations. (10 Classes)

PRACTICAL(22 Hours)

Modalities for Practical Component: Project Report / Study Report based on Field work i.e. Visit in Panchayats, Municipalities, APSC, DC Office, SHRC etc.

Reading List:

- (1) Chakraborty, Bidyut. Pandey, Rajendra K. (2023) 'Indian Political System: Institutions and Processes' Routledge India.
- (2) Rupavath Ramdas, (2022) 'Indian Politics: Institutions and Processes' Raut Pulications.
- (3) Laxmikanth, M. (2012) 'Indian Polity for civil service examinations' Tata McGraw Hill Education Private Limited, New Delhi.
- (4) Raghumandan, J. R. (2012). Decentralization and Local Governments: The Indian Experience, Orient Black Swan, New Delhi.
- (5) Niraja Gopal Jayal and others, (2006), Local Governance in India- Decentralization and Beyond, Oxford University Press.
- (6) Kaul, M. N. & Delhi: LokSabha Secretariat.
- (7) D. A. Rondinelli and S. Cheema, (1983), Decentralisation and Development, Beverly Hills: SagePublishers.
- (8) Paylee M.V. (2016), 'India's Constitution', S. Chand and Pvt. Ltd.

44. Programming in C

PROGRAMMING IN C

Total Marks: 100 (Theory 60, Practical 20, Internal Assessment 20)

Per week: 2 Lectures 1 Practical, Credits 3(2+1) Each unit carry equal credit

Course Objectives: This course introduces C programming in the idiom and context of mathematics and imparts a starting orientation using available mathematical libraries, and their applications.

Course Learning Outcomes: After completion of this paper, student will be able to:

- i) Understand and apply the programming concepts of C which is important to mathematical investigation and problem solving.
- ii) Learn about structured data-types in C and learn about applications in factorization of an integer and understanding Cartesian geometry and Pythagorean triples.
- iii) Use of containers and templates in various applications in algebra.
- iv) Use mathematical libraries for computational objectives.
- v) Represent the outputs of programs visually in terms of well formatted text and plots.
- vi) In practical students learn about the roots of a quadratic equation, solution of an equation using N-R algorithm, sin(x), cos(x) with the help of functions.
- **Unit 1:** Variables, constants, reserved words, variable declaration, initialization, basic data types, operators and expression (arithmetic, relational, logical, assignment, conditional, increment and decrement), hierarchy of operations for arithmetic operators, size of and comma operator, mixed mode operation and automatic (implicit) conversion, cast (explicit) conversion, library functions, structure of a C program, input/output functions and statements. Control Statements: if-else statement (including nested if-else statement), switch statement. Loop control Structures (for and nested for, while and do-while). Break, continue, go to statements, exit function.
- **Unit 2**: Arrays and subscripted variables: One and Two-dimensional array declaration, accessing values in an array, initializing values in an array, sorting of numbers in an array, addition and multiplication of matrices with the help of array. Functions: function declaration, actual and formal arguments, function prototype, calling a function by value, recursive function.

Programs for practical:

To find roots of a quadratic equation, value of a piecewise defined function (single variable), factorial of a given positive integer, Fibonacci numbers, square root of a number, cube root of a number, sum of different algebraic and trigonometric series, a given number to be prime or not, sum of the digits of any given positive integer, solution of an equation using N-R algorithm, reversing digits of an integer. Sorting of numbers in an array, to find addition, subtraction and multiplication of matrices. To find $\sin(x)$, $\cos(x)$ with the help of functions.

Text Books:

1. T. Jeyapoovan, A First Course in Programming with C T. Jeyapoovan, Vikash Publishing House Pvt. Ltd.

Reference books:

- 1. E. Balaguruswamy, Programming with C, Schaum Series.
- 2. Y. Kanetkar, *Let us C*, B.P. Publication.

45. Quantitative Aptitude and Reasoning (Syllabus 1)

Title: QUANTITATIVE APTITUDE AND REASONING

Target group: Open for all (Arts, Science and Commerce)

Theory: 2 credit; Practical: 1 credit

Learning Objective(s):

The course is designed for all in view of assessing cognitive abilities of students in various competitive examinations. Therefore, it is desired that a Graduate must possess cognitive skill attributes to pursue further avenues in higher education and other sectors. This Skill Enhancement Course is expected to enhance employability of students pursuing FYUGP.

The main objective of the course are as follows,

- 1. Students will develop skills to prepare themselves for the competitive world for better job opportunities
- 2. Efforts will be made to accommodate fundamental and mathematical aspects to instil confidence among students
- 3. Students will enrich their knowledge and develop their logical reasoning thinking ability
- 4. Students will know the tricks and methods to solve quantitative and reasoning problems with accuracy and in a time-bound manner

Course Outcome(s):

On successful completion of the Course, students are expected to

- 1. Develop cognitive abilities
- 2. Build analytical skills
- 3. Understand the structure of arguments and reasoning
- 4. Solve problems efficiently in less time

Unit-wise Syllabus

THEORY

Unit I - (4 hours)

MENTAL ABILITY

Number System, Ages, Averages, Time and Calendar, Speed and Distance

Unit II – (6 hours)

NUMERICAL APTITUDE

Ratios and Proportions, Profit and Loss, Simple and Compound Interest

Unit III - (7 hours)

LOGICAL REASONING

Alphanumeric series, Blood relations, Directions, Seating Arrangement, Deductive-Inductive Reasoning, Coding-Decoding

Unit IV - (5 hours)

DATA HANDLING

Data: meaning, types, sources; Data Representation using Diagrams and Charts; Data Interpretation, Data sufficiency

PRACTICAL

Practical Worksheet

(22 hours)

Problem-solving questions on,

- 1. Age
- 2. Speed and Distance
- 3. Averages
- 4. Family-tree
- 5. Ratios and Proportions
- 6. Coding-Decoding
- 7. Time and Calendar
- 8. Simple Interest
- 9. Compound Interest
- 10. Profit and Loss
- 11. Seating Arrangement
- 12. Inductive reasoning
- 13. Deductive reasoning
- 14. Directions
- 15. Alphanumeric series
- 16. Construction of various Diagrams and Charts
- 17. Interpretation of various Diagrams and Charts
- 18. Data sufficiency

Reference(s):

- 1. Aggarwal, R.S, "Quantitative Aptitude for Competitive Exams", S.Chand
- 2. Tyra, M., "Quicker Maths", BSC Publishing Co. Pvt. Ltd.
- 3. Trueman's Specific Series "UGC NET/SET"

(Syllabus 2)

Skill Enhancement Course 4: Quantitative Aptitude (Offered by the Department of Mathematics)

Open for All

Duration: 24 Hours

Unit 1: Vedic Mathematics (4 hrs)

Multiplication, Square and Square Roots, Cube and Cube Roots, Relation Between Percentage and Reciprocals

Unit 2: Numbers (6 hrs)

HCF & LCM, Averages, Equation, Inequalities

Unit 3: Percentage (6 hrs)

Profit, Loss and Discount, Simple and Compound Interest

Unit 4: Time, Speed, and Distance (4 hrs)

Boats & Streams (Upstream and Downstream Motion), Train Problems, Race Problems

Unit 5: Indices and Logarithms (4 hrs)

Surds, Age Problems Ratio & Proportion

Unit 6: Geometry (4 hrs)

Unit 7: Clocks (4 hrs)

Partnership, Alligation, Progression

Unit 8: Chain Rule (4 hrs)

Time & Work, Pipes & Cisterns

Reference books:

1. Quantitative aptitude for Competitive examination By R S Agarwal

4. Magical Book on Quicker Maths by M. Tyra

46. Reasoning & Logic

Title: APTITUDE AND LOGICAL REASONING COURSE

Total Marks = 100 (Final Exam 80 Marks + Project 20 Marks)

Unit 1- Quantitative Ability (Basic Mathematics)

(6 Lectures)

(Number system, LCM and HCF, Decimal Fractions, Simplifications, Square roots and Cube roots, Average, Problems on Age, Surds and Indices, Percentages, Problems on Numbers)

Unit 2- Quantitative Ability (Applied Mathematics)

(6 Lectures)

(Logarithm, Permutation and Combinations, Probability, Profit and Loss, Simple and Compound Interest, Time- Speed and Distance, Time & Work, Ratio and Proportion, Area, Mixture and Allegation)

Unit 3- Data Interpretation

(7 Lectures)

(Data Interpretation, Tables, Column Graphs, Bar graphs, Line Charts, Pie Chart, Venn

Diagrams) (8 Lectures)

Unit 4- Logical Reasoning

(Analogy, Blood relation, Directional Sense, Number and letter series.

Coding-Decoding, Calendars, Clocks, Venn Diagrams, Seating Arrangement, Syllogism and

Mathematical Reasoning)

(4 Lectures)

COURSE OUTCOME:

On completion of this skill enhancement course the students will be able to

- Understand the basic concept of Quantitative Ability.
- Understand the basic concept of Logical Reasoning Skills
- Acquire satisfactory competency in use of reasoning
- Solve campus placements aptitude papers covering Quantitative Ability, Logical Reasoning
- Compete in various competitive examinations like CAT, CMAT, GATE, GRE, UPSC

47. Renewable Energy and Energy Harvesting

Credits: 3 (Theory: 3)

Theory: 30 Lectures

Preferred minimum qualifications of the teacher/instructor: Assistant Professor of Physics with PhD in Condensed Matter Physics.

The aim of this course is not just to impart theoretical knowledge to the students but to provide them with exposure and hands-on learning wherever possible

Theory

Unit I: Fossil fuels and Alternate Sources of energy (Lectures 3)

Fossil fuels and Nuclear Energy, their limitation, need of renewable energy, non-conventional energy sources. An overview of developments in Offshore Wind Energy, Tidal Energy, Wave energy systems, Ocean Thermal Energy Conversion, solar energy, biomass, biochemical conversion, biogas generation, geothermal energy tidal energy, Hydroelectricity.

Unit II: Solar energy (Lectures 6)

Solar energy, its importance, storage of solar energy, solar pond, non-convective solar pond, applications of solar pond and solar energy, solar water heater, flat plate collector, solar distillation, solar cooker, solar green houses, solar cell, absorption air conditioning. Need and characteristics of photovoltaic (PV) systems, PV models and equivalent circuits, and sun tracking systems.

Unit III: Wind Energy harvesting (Lectures 3)

Fundamentals of Wind energy, Wind Turbines and different electrical machines in wind turbines, Power electronic interfaces, and grid interconnection topologies.

Unit IV: Ocean Energy (Lectures 3)

Ocean Energy Potential against Wind and Solar, Wave Characteristics and Statistics, Wave Energy Devices.

Unit V: (Lectures 2)

Tide characteristics and Statistics, Tide Energy Technologies, Ocean Thermal Energy, Osmotic Power, Ocean Bio- mass.

Unit VI: Geothermal Energy (Lectures 2)

Geothermal Resources, Geothermal Technologies.

Unit VII: Hydro Energy (Lectures 2)

Hydropower resources, hydropower technologies, environmental impact of hydro power sources.

Unit VIII: Piezoelectric Energy harvesting (Lectures 4)

Introduction, Physics and characteristics of piezoelectric effect, materials and mathematical description of piezoelectricity, Piezoelectric parameters and modeling piezoelectric generators, Piezoelectric energy harvesting applications, Human power.

Unit IX: Electromagnetic Energy Harvesting (Lectures 2)

Linear generators, physics mathematical models, recent applications

Unit X: (Lectures 3)

Introduction to Carbon capture technologies

Unit XI: (Lectures 1)

Environmental issues and Renewable sources of energy, sustainability

Reference Books

- [1] Non-conventional energy sources G.D Rai Khanna Publishers, NewDelhi
- [2] Solar energy M P Agarwal S Chand and Co.Ltd.
- [3] Solar energy Suhas P Sukhative Tata McGraw Hill Publishing CompanyLtd.
- [4] GodfreyBoyle, "RenewableEnergy,Powerforasustainablefuture",2004,OxfordUniv ersityPress,in association with The OpenUniversity.
- [5] Dr.PJayakumar, Solar Energy: Resource Assesment Handbook, 2009 J.Balfour, M.Sha wand S.Jarosek, Photovoltaics, Lawrence J Goodrich (USA).

http://en.wikipedia.org/wiki/Renewable energy

48. Retail Management (Syllabus 1)

| OBJECTIVES: | |
|--|---|
| Enable students to acquire skills in Retail Management. | |
| □ to familiarize the students with the latest retail business . | |
| ☐ Is to familiarize Retail marketing mix. | |
| LEADNING OUTCOMES | |
| LEARNING OUTCOMES: | an an matailin a |
| To implement about business and the external forces that influe To make the students understand the business transformation | _ |
| of retail store To accustom the students to the various retail of | |
| of retail store to accustom the students to the various retail of | operation in the field of marketing. |
| UNIT 1: | |
| Introduction to Retail Business: | 04 HRS |
| Definition-functions of retailing-types of retailing-forms of r | retail business ownership. Retail formats- |
| Retail theories-Wheels of retailing-Retail life cycle. Retail bus | iness in India: influencing factors- Presen |
| Indian retail scenario. International perspective in retail busine | ss |
| | |
| UNIT 2: | |
| Consumer behavior in retail business: | 04HRS |
| During designer masses and its implication on matelling in | flyaman of amount and individual factors |
| Buying decision process and its implication on retailing-in- customer shopping behavior, customer service and custom | <u> </u> |
| factors to consider in preparing a business plan-implementation | 1 0 1 |
| factors to consider in preparing a business plan implementation | ii iisk anarysis. |
| UNIT 3 | |
| Retail operations: | 04 HRS |
| | |
| Factors influencing location of store-market area analysis-Tra | ade areas analysis-rating plan method-site |
| evaluation. Retail operations: stores layout and visual mercha | ndising, stores designing, space planning |
| inventory management, merchandise management, category m | anagement. |
| YYYYE A | |
| UNIT 4: | 101 |
| Retail marketing mix: | 10 hrs |

HRS Introduction-product: decisions related to selection of goods (Merchandise Management Revisited)-Decisions related to delivery of services. Pricing: influencing factors-approaches to pricing price sensitivity-value pricing-markdown pricing. Place: supply channel-SCM principles-Retail logistics-computerized replenishment system-corporate replenishment policies. Promotion: setting

objectives-communication effects-promotional mix. Human resource management in retailing - Manpower planning-recruitment and training compensation-performance appraisal methods.

UNIT 5

Impact of information technology in retailing:

08 HRS

Non-store retailing (E-Retailing)-The impact of information technology in retailing-integrated systems and networking-EDI-Bar Coding-Electronic Article surveillance-electronic shelf labels-customer database management system. Legal aspects in retailing, social issues in retailing, ethical issues in retailing.

SKILL DEVELOPMENT

| Draw a retail life cycle chart and list the stages. |
|---|
| □Draw a chart showing a store operations |
| ☐ List out the major functions of a store manager diagrammatically |
| □List out the current trends in e-retailing |
| ☐ List out the Factors Influencing in the location of a New Retail outlet |

REFERENCES:

- 1. Suja Nair; Retail Management, HPH
- 2. .Karthic -Retail Management, HPH
- 3. S.K. Poddar&others –Retail Management, VBH.
- 4. R.S Tiwari; Retail Management, HPH 18
- 5. Barry Bermans and Joel Evans: "Retail Management –A StrategicApproach", 8th edition, PHI/02
- 6. A.J.Lamba, "The Art of Retailing", 1st edition, Tata McGrawHill, NewDelhi, 2003.
- 7. Swapna Pradhan : Retailing Management, 2/e, 2007 & 2008, TMH 8. K. Venkataramana, Retail Management, SHBP.
- 9. James R. Ogden & Denise T.: Integrated Retail Management
- 10. A Sivakumar: Retail Marketing, Excel Books
- 11. Ogden: Biztantra, 2007
- 12. Levy & Weitz: Retail Management -TMH 5th Edition 2002
- 13. Rosemary Varley, Mohammed Rafiq-: Retail Management
- 14. Chetan Bajaj: Retail Management -Oxford Publication.
- 15. Unival & Sinha: Retail Management -Oxford Publications.
- 16. Araif Sakh; Retail Managem

(Syllabus 2)

Paper Name: -Retail Sales Specialist cum Cashier

Credit 3 Total Marks: 100

Theory classes: 17 classes (one hour each-17 hrs)

Theory:50 marks

Practical classes: 16 classes (Two hours each-32 hrs)

Practical:50 Marks

Practical classes will include: 12 hours of Retail Lab practical, 12 hours of presentation preparation, 6 hours of Group Discussion. 2 hours of assignment preparation

CourseDescription:

This course on "Retail SalesSpecialistcumCashier" for undergraduatestudentsbuildsbasically on the soft skills already possessed by the students apart from preparing them for an entry level profession in the retailindustry. It aims to develop the technical skills required for the jobapart from improving their communication and problem-solving skills.

CourseObjective:

This course is aimed attrainingstudentsforthe job of 'Retail Sales Specialist cum Cashier', in the 'Retail' Sector/Industry and by the end of these mesteraims at building the job specific key competencies amongst the learners

SpecificObjectives:

The courseaims to enablestudents to-

- Understand thebasic concepts oftheretailindustry
- Understand the jobdescription and dutiesof "RetailSalesSpecialistcum Cashier"
- Understand the basics of retail business process management
- Understand theimportanceofsalessupport and customer relationshipmanagement
- Understand theimportanceofmaintenanceofstorehygiene, safetyand securityoftheretailstore
- Gives an idea of various problem-solving skills related to the industry
- Givean exposure to the practical aspects of the industry
- Develop softskills

CourseOutcome:

After thecompletionofthecourse, thestudents will beableto

- Understand thebasicsoftheretailindustry
- Know therequirements of the profession of Retail Sales Specialist cum Cashier
- Develop theskillsrequired for beingasuccessful Retail SalesSpecialistcumCashier
- Communicate with people with confidence

CourseContent:

Unit1:INTRODUCTION TO RETAIL MANAGEMENT

- * FundamentalsofRetail
- * Evolution of Retailin India
- * Indian Retail Industry
- * Organized and Unorganized Retail Sector
- * Types ofRetail Formats
- * Retail LifeCycle
- * Retail MarketingMix

Unit2: INTRODUCTION TO RETAIL SALES SPECIALIST CUMCASHIER

Marks: 10

* Retail SalesSpecialistcum Cashier-Definition, Job Description, Duties

Unit 3:SALESSUPPORT

- * Importance of product demonstration:
- * Specialist support tocustomers in facilitatingpurchases
- * Maximizationofprofitthrough sales ofgoods&services
- * Personalizedsales&post-salesservicesupport

Unit 4:CUSTOMER RELATIONSHIP MANAGEMENT

Marks: 10

Marks: 10

Marks: 10

- * CRM-Concept, Importance
- * Importance of monitoring and resolving service concerns/grievances
- * Importance of creating positive image of self & organization in the customers mind

Unit 5:STORE HYGIENE, SAFETY&SECURITY

Marks: 10

- * Concept &ImportanceofStoreHygieneandCleanliness
- * Concept &ImportanceofStoreSafety& Security

Readerlist:

Pradhan,S.,RetailingManagement:Textand CasesMadanR.L., A Textbook ofRetailManagement QualificationPackofRetailSalesSpecialistcumCashierprescribed byRASCI

49. Rural Marketing

Rajiv Gandhi Memorial College, Lengtisinga

Department of Economics

Skill Enhancement Course

Course Objectives: The objective of the course rural marketing is to familiarize the students with the conceptual understanding of rural marketing and is corresponding development practices in Indian context.

Course Outcome: The course outcome of Rural Marketing may be as follows:

- Understanding the agricultural marketing system and role of price discovery in our economic system
- To Understand, defined, and explain value added processing
- To Understand, define and explain competition in the market place.
- To Understand, define and explain consumer demand issues.
- To understand the role of information technology in rural marketing.

Unit – I: Introduction to Rural Marketing:

Meaning, Scope, Definition and Importance of Rural versus Urban Marketing, Growth of Rural Market, Basic Different between Rural, Semi-Urban and Urban Markets, Profile of Rural Consumer Behavior.

Unit – II: Role of Government in the Development of Agricultural Marketing:

Government Intervention in Marketing System, Role of Agencies like State Agricultural Marketing Boards, Co-Operative Marketing, Types of Co-Operative Marketing Societies, AGMARK, National NCDC (National Co-operative Development Corporation), Publics Distribution System, Self-Help Group in Assam (SHGs), North Eastern Regional Agricultural Marketing.

Unit – III: Agricultural Credit and Crop Insurance:

Agricultural Credit Policy, Institutional Agreement for Agricultural Credit, Crop Insurance, Agricultural Insurance.

Unit – IV: Role of Information Technology in Rural Marketing:

Infrastructure, Importance and Scope, Modern Techniques for Rural Distribution.

Reference Books:

- 1. Rural Marketing: Ashok Jain, Varun Jain.
- 2. Rural Marketing Text and Cases: Krishnamacharyulu and Lalitha Ramkrishnan
- 3. Rural Marketing: Pradeep Kashyap.

50. Sattriya Dance Skill

Course Title: SATTRIYA DANCE SYLLABUS

THEORY

- Extensive study of Sattriya Dance.
- Introduction of various types of classical dance forms of India.
- Brief knowledge about Srimanta Sankardev and Madhavdev.
- General knowledge of Tandav and Lashya forms of dance.
- Knowledge of Hastamudra (According to Sri Hasta Muktawali). Asangjukta, Sangjukta and Nritya Hasta, its description and uses.
- Introduction knowledge of Matiakhara. The types of Matiakhara.
- The name of Sattras along with the place of Assam.
- Few names of Gurujis of the Sattriya Dance.
- Basic knowledge of drishti, Griba karma, and its types.
- Basic knowledge of Aanga, Pratyanga and Upanga.
- Basic knowledge of Nayak-NayikaBheda as discussed in the Ntyashastra.
- Introduction of the pure dance of Sattriya -JhumuraRamdani and its description.
- Introduction of pure dance-JhumuraGeetorNaach, MelaNaach, and its description.
- Basic knowledge of SaliNach.
- Life history of SattriyaNritya Gurus or Adhyapaks.
- Knowledge of Taal, Taali, Chapori, Matra, Loy, Shachar, Bhangani, Ghat, Chok.

PRACTICAL

- Practical introductory knowledge of Matiakhora like Ora, Sota, Jhalak, Chalana, Sitika, HaatSalowa, Harbhanga, PosolaTola, Panihisa, Gerowasowa, Muruka, Jatani, Tewai, Haatpokowa, Pak, Kokilakhosa, Jaap, Moropa, Ketela, Athuwa, Satrawali.
- Practical knowledge of Taal Suta Taal, Thukoni Taal, Ektaal, Jatitaal.
- Practical knowledge of Hastamudra Asangjukta and Sangjukta Hasta, Nritya Hasta and its uses.

- Practical knowledge of Navarasa and its types.
- Practical knowledge of dance form JhumuraRamdani, JhumuraGeetorNach, JhumuraMelaNaach.
- One Ramdani of SaliNaach- Takjiddhei di didhei.

51. Soft Skill-1

Syllabus: First Semester

| Total marks: 100(External: 50 | Nature of Course: SEC | No. of Credits: 3(two theory and | |
|-------------------------------|-----------------------|-----------------------------------|--|
| + Internal/Practical: 50) | | one practical credits) | |
| | | No. of hours: 2x11+1x22=44 hours | |

Course Description

This course on Sot Skills for undergraduate students builds on the Skill Enhancement Courses under FYUGP offered in the first semester. It aims to the soft skills of the students. The sustained content in this course is based on Reading and Writing pedagogy, and uses authentic materials to teach students. The accessible short texts used will help the students develop their speaking, reading, writing, vocabulary and grammar skills.

Objectives/

This course will enable students to

- Equip the students with the skills to communicate effectively through innovative teaching methods.
- motivate the students to speak according to the context and with confidence
- train the students in interview skills, group discussions and presentation skills
- expose the students to other important skills such and computing and programming
- enhance the students' interpersonal skills
- improve the students' critical thinking skills
- make them ready to face any interview and group discussion
- inculcate positive attitude in students
- inculcate overall employability skills especially leadership skills, emotionalintelligence and other personal attributes crucial for success in business or career.

Learning Outcomes

This course will well equipped the students with necessary skills for their career building and growth.

Courses it feeds into

This course will feed into all the students across all streams /disciplines and will help them in their preparation for career goals.

Mode of delivery

Interactive discussions, digital tasks, personalization of topics, exercises and activities based on the selected texts, on the spot writing assignments, pair and group discussions, and feedback sharing.

Evaluation

Students will be evaluated through an internal component of 50 marks comprising sessional examination, Class test, class assignments, home assignments, class discussions, oral presentations, and so on. There will also be a written end-of-term External examination of 50 marks where students will be evaluated on their understanding of the course and their ability to use the skills and strategies studied in the course.

Course Content:

| UNITS | CONTENTS | T | T/P | Total Hours |
|-----------|--|----|-----|----------------|
| Unit -I | Introduction to Soft Skills- define and understand Soft Skills List and overcome the filters/barriers in Soft Skills | 2 | 0 | 02 |
| Unit -II | Soft Skills Communication Skills (without being language specific) Essential and basic rules of Body Language | 08 | 04 | 12 |
| Unit -III | Leadership development Time management Teamwork Critical thinking Problem solving interpersonal skills Manners and attitudes | 08 | 06 | 14 |
| Unit -IV | Handling a Smart Phone in a better way Basic Computer Knowledge | 01 | 04 | 05 |
| Unit -V | Writing a CV/job applications GD Skills Interview skills | 03 | 08 | 11 |

Suggested Readings:

1. English and Soft Skills. S.P. Dhanavel. Orient Black Swan 2013

- 2. Business English. Sharmistha Panja et al. Pearson, 2009.
- 3. Fluency in English Part II, Oxford University Press, 2006.
- 4. Any other books related to the course.

GAUHATI UNIVERSITY

DEPARTMENT OF ARABIC FYUGP SEMESTER: I

SPOKEN ARABIC-I (SEC PAPER)

UNIT-I: Fundamentals of Arabic Language

- ✓ Introduction to Arabic Alphabets
- ✓ Listening to texts, listening to Arabic audio-videos
- ✓ Introduction to Arabic phonetic Symbols, consonants & Vowels with illustrations in use
- ✓ Pronunciation Practice preferably using ICT tools

UNIT-II: Development of Reading and writing Skill

- ✓ Recognition of Arabic letters
- ✓ Reading comprehension and Combination of Letters
- ✓ Description of Human vocal organs (مخارج الحروف)
- ✓ Writing Practices

UNIT-III: Vocabulary Enrichment

Arabic vocabulary related to

- ✓ Nature e.g. Earth, Moon, Sun, river mountain. and seasonsetc.
- ✓ Relatives e.g. father, mother, brother etc.
- ✓ Body parts, dresses and time related words like Month, Week, Day and Direction etc.
- ✓ Arabic numeral (1 to 100), Plants, Vegetables, Flowers, Fruits etc.

UNIT-IV: Basic Grammar and Conversation Practices

- ✓ Parts of Speeches
- ✓ Person, Number and Gender
- ✓ Conversation Practices using demonstrative pronouns
- ✓ Conversation Practices using simple sentences

Reading References:

- 1. معلم اللغة العربية, Standard-I, Published by MESCO-ALEEF, Hyderabad
- 2. Published by MESCO-ALEEF, Hyderabad معلم اللغة العربية (الثروة اللغوية)
- 3. Teach Yourself Arabic by Prof. S. A. Rahman
- 4. Arabic for Beginners by. S. Ali
- 5. Madina Arabic, Vol. I by Dr. V. Abdur Rohim
- 6. Let's Speak Arabic By Prof. S. A. Rahman

Graduate attributes:

- 1. Creativity
- 2. Communication skill
- 3. Learning how to learn skill

Learning outcomes:

- 1. The learners will be able to recognize Arabic alphabet and pronounce them correctly.
- 2. The course will help the learners in social interactions and will help them convey basic information in Arabic.
- 3. The course will guide the learners to comprehend simple written texts on common topics.
- 4. At the end of the course the students will be at ease to compose simple texts in Arabic.
- 5. The course will lead the students to comprehend simple audio-video texts in Arabic.

53. Spoken English (Syllabus 1)

---By Bibhash Choudhury, Dept of English, GU

SUBJECT NAME: ENGLISH

COURSE NAME: VAC(SPOKEN ENGLISH)

COURSE LEVEL: 100-199(FOUNDATION AND INTRODUCTORY)

GRADUATE ATTRIBUTES: This introductory course in Spoken English is designed to equip students from all disciplines with spoken English skills which have become absolutely necessary in our personal, social, and professional lives in this age of globalization and the internet. Students will be familiarized with the nuances of spoken English and given practice in the use of English in a variety of formal and informal settings so that, by the end of the course, they are able to use the language confidently in different contexts of interpersonalinteraction. The spoken English skills will enable the graduates to confidently collaborate with others and coordinate activities thereby developing their team spirit and social skills. The communicative ability of the graduates will also be seen in their digital and technological skills which they will imbibe through the incorporation of information and communication technology in the teaching process.

Teaching Methodology: Activities in the language lab and appropriate audio-visual aids and ICT will be used wherever necessary to hone the spoken English skills of the students.

Assessment: The spoken skills acquired by the students will be tested through an oral examination which may involve components like i. Group discussion, ii. An interview situation, iii. An oral presentation iv. Reading a passage with correct pronunciation and appropriate stress and intonation, v. Description of a scene in a photographor video clipping etc.

THEORY CREDIT: 1

PRACTICAL CREDIT: 1

a) No. of Contact Classes: 2 classes per week

b) No. of Non-contact Classes: None (students will be allotted reading and listening exercises and other assignments to be done when they are not attending contact classes.)

UNIT – I: ELEMENTS OF SPOKEN COMMUNICATION

Here students will get a broad understanding of the sound system of English-the vowel and consonant sounds, word stress and sentence stress, weak forms, and intonation patterns. They will be made aware of the importance of using correct pronunciation in speaking. Exercises in listening and repeating preferably in a language laboratory will go a long way in developing pronunciation and in imbibing the features of spoken English communication. The students will also be acquainted with the non -verbal features of spoken communication-gestures and postures, eye contact, and other features of body language so that they acquire the ability to communicate effectively.

UNIT -II GRAMMAR AND VOCABULARY

Students will be offered instruction on avoiding common grammatical mistakes in speaking-mistakes related to tense, subject-verb agreement, prepositions etc. They will be encouraged to listen and read so that they can build up a good vocabulary which will help them in written as well as spoken communication.

UNIT – III SPEAKING ACTIVITIES

Students will be given practice in speaking English in a variety of formal and informal situations. The practice activities will strive to incorporate the following:

- Basic speaking skills like making statements, asking questions, requesting, apologizing, issuing orders etc.
- Description of an event or an incident
- Role play involving dialogue
- Telling a story from outlines given
- Group discussion on a given topic
- Interview (face-to-face, telephonic and video)
- Oral presentation a topic using audio-visual aids like powerpoint
- Public speaking

REFERENCE BOOKS & MATERIALS:

Eastwood, John.Oxford Guide to English Grammar. OUP, 1994

McCarthy, Michael and Felicity O Dell. English Vocabulary in Use, Upper Intermediate with Cdrom, Cambridge University Press, 2008.

Yates, Jean. English Conversation. McGraw Hill, 2020

Yule and Brown. Teaching the Spoken Language: An Approach Based on the Analysis of Conversational English (Cambridge Language Teaching Library, 1983)

(Syllabus 2)

Skill Enhancement Course 8: Spoken English (Offered by the Department of English) Guwahati College

Open for All

Total Credit =3(33 Hours)

Unit 1: Phonology of English

A brief introduction to English language and its characteristics, Phonemes: Consonants, Vowels and Diphthongs, Articulation of speech sounds, Syllables and CVC pattern, Accent patterns and Intonation

Unit 2: Conversation in English

a) Patterns: Greeting, Invitation, and replies, Making requests, commanding, ordering and asking the question, Seeking permission, Apologizing, Complaining, complementing and congratulating

b) Using English in Real life situations: At the Bank/office, At the shop, At the temple, Meeting friends, Meeting relatives, Visiting a doctor, At the police station At the railway/ bus station, Interviews, Telephonic communication

Unit 3: Basic English Grammar

Parts of speech and their uses, Articles and their uses, Synonyms and antonyms, Word-formation, Punctuation, Sentence pattern

Unit 4: Practical

Definition of terms, Synonyms and antonyms, Word and sentence formation

Loud reading of a poem/passage, Pronunciation of words, Observation of accent, and pronunciation of a given text

Practice Session in Language Lab

Reference Books:

- 1] Bansal R.K. and Harrison J.B. Spoken English for India. Orient Longman, Mumbai, 2000.
- 2] Daniel Jones. English Pronouncing Dictionary. 15th edition. Roach, P. & Hartman, J. eds. Cambridge UK: Cambridge University Press, 1997.
- 3] Katamba, F. An Introduction to Phonology, Longman, 1989.
- 4] Roach. Peter. English Phonetics and Phonology: A Self-contained comprehensive pronounciatin course.4th edition. Cambridge UK: Cambridge University Press, 1983
- 5] T. Balasubramanium. A Textbook of English Phonetics for Indian Students. Macmilan, New Delhi, 1999.
- 6] Bygate, M. Speaking. Oxford: Oxford University Press.
- 7] G. Radhakrishna, Pillai, K. Rajeevan. Spoken English for You. CIEFL. Emerald Publication.
- 8] Z.N.Patil. English for Practical Purpose, Mac Millan Ind. Ltd.
- 9] Assam Publishing Company. Modern English Grammar and Composition. Anglo- Assamese Edition. 2016
- 10]Bani, Prakashani. An Approach to English Grammar & Composition.
- 11] Geoffrey, Leech. Margaret Deushar. English Grammar Today.
- 12] Wren & Martin. High School English Grammar and Composition. Revised by Dr N.D.V Prasada Rao, S. Chand. 1999.
- 13] W.S. Allen. Living English Structure.
- 14] Wood, F.T. A Remedial English Grammar for Foreign Students.

(Syllabus 3) 1. SPOKEN ENGLISH COURSE

2. Total Marks = 100 (Theory 70 marks + Practical 30 Marks)

UNIT -A:

- i) Listening- Listening to the Texts, Trials of a Good Listener (2 Lectures)
- ii) Listening & Comprehension- Interpretation of Texts based on Question-answer and Interaction among students. (3 Lectures)
- iii) Vocabulary & Word Formation-From different texts & Dictionary.

 (3 Lectures)
- iv) Practice Exercises on the use of different grammatical constructions in context, Identification of the use of the above given grammatical devices from different texts like newspapers, poems, stories etc.(3 Lectures)
- v) Dialogues (1 Lecture)
- vi) Telephonic Conversation (1 Lecture)

UNIT-B:

- i) Pronunciation –Introduction of English Phonetic Symbols, Consonants & Vowels with illustrations in use. (3 Lectures)
- ii) Reading Skill-Techniques of reading, reading Comprehension of unseen pages, Identifying the context & the central idea. (2 Lectures)
- iii) Basic Grammar-Both spoken and Written.

(3 Lectures)

iv) Words & Phrases used for conversation, questions, order and suggestions.

(2 Lectures)

v) Public Speech

(2 Lectures)

vi) Translation

(2 Lectures)

COURSE OUTCOME:

On completion of this skill enhancement course in Spoken English 'a student can develop pronunciation skills and the sounds of English , can have better career prospects, improved academic performance, enhanced communication skills, improved confidence during interviews, access to global resources and enhanced travel experiences.

54. Spoken Hindi

(Syllabus 1)

स्पोकन हिन्दी

कुल अंक :100

सैद्धांतिक परीक्षण :50

व्यावहारिक परीक्षण50:

क्रेडिट3:

कक्षाएँ 60: घण्टे

कोर्स-लेवल 199-100:

पूर्व:योग्यता-हिन्दी10 सहित-वीं कक्षा उत्तीर्ण-

स्नातक:गुण-स्पोकन हिन्दी के इस पाठ्यक्रम को इस रूप में प्रस्तुत किया गया है ताकि विद्यार्थियों में खड़ीबोली हिन्दी के कथितबोलचाल के रूप से संबंधित इतनी योग्यता विकसित हो कि वे दैनन्दिन जीवन के सभी संदर्भों में मौखिक स्तर / पर सफलतापूर्वक हिन्दी का प्रयोग कर सकें।

लक्ष्य: विद्यार्थियों की हिन्दी-कथन-क्षमता को सम्यक् रूप से विकसित करना प्रस्तुत पाठ्यक्रम का प्रमुख लक्ष्य है।

इकाई) 1क्रेडिट : (1 :स्पोकन हिन्दी : अवधारणा, स्वरूप,उपयोगिता ;

हिन्दी की स्वर) विधियाँ-व्यंजन ध्विनयाँ एवं उनकी उच्चारण-ह्रस्व और दीर्घ स्वरों के उच्चारण में अन्तर; शब्द के आद्य, मध्य और अंत्य 'अ' के उच्चारण की विशेषताएँ; च, छ, ज, झ के उच्चारण की विशेषताएँ; दंत्य और मूर्धन्य ध्विनयों के उच्चारण में अन्तर; श,ष, स ध्विनयों के उच्चारण में अन्तर; 'र' ध्विन के उच्चारण की विविध स्थितियाँ; 'क्ष' और 'च्छ' के उच्चारण की विशेषताएँ; र, इ और ढ़ के उच्चारण में अन्तरइन बातों -- (पर विशेष ध्यान

इकाई)2क्रेडिट : (1 :हिन्दी की आधारभूत शब्द-सम्पदा : शरीर के अंग,मनुष्य एवं मानवीय संबंध,

पोशाक, गहने, खाद्य-पदार्थ, साग-सब्जी, फल-फूल, पशु-पक्षी, पेड़-पौधे, घरेलू चीज़ें, काम करने के औज़ार, सवारी, बीमारी-दवा, खेल-कूद, तिथियाँ, दिनों के नाम, महीनों के नाम, संख्या-गिनती, संगीत-वाद्य, अनाज, रंग, व्यवसाय, आकाश, क्रियाएँ इत्यादि सूचक संज्ञा शब्द ;िहन्दी के सर्वनाम, विशेषण और अव्यय शब्द

इकाई)3क्रेडिट : (1 :अभिवादन;अपना परिचय प्रदान-; दूसरे की परिचयप्राप्ति-; आत्मीयजनों एवं-मित्रोंके साथ वार्तालाप, अपरिचित-जनों के साथ बातचीत; शिक्षण-संस्थान, बाज़ार,

> यातायात-परिवहन, बैंक-डाकघर, विभिन्न कार्यालय, खेल-कूद, मनोरंजन, सांस्कृतिक कार्यक्रम,अस्पताल, संचार-माध्यम इत्यादि के संदर्भों में सम्बद्ध जनों के साथ विविध प्रकार)अर्थ और संरचना की दृष्टि से(के वाक्यों के जरिए विचारों का आदान-

प्रदान;मुहावरेदार भाषा में बातचीत

द्रष्टव्यः व्यावहारिक परीक्षण के अन्तर्गत प्रश्नोत्तर, किसी विषय पर भाषण, दो जनों का वार्तालाप, समूह में चर्चा आदि की व्यवस्था रहेगी। विभागीय प्राध्यापकगण, महाविद्यालय के अध्यक्षसंस्थान के प्रमुख अथवा उनके द्वारा शिक्षण/ कार्य सम्पन्न होगा।-नामित प्रतिनिधि के समक्ष व्यावहारिक परीक्षण एवं मूल्यांकन

अभ्यास पुस्तकें) सिर्फ पढ़ने के लिए):

- .1*बात-चीत-* असम राष्ट्रभाषा प्रचार समिति, गुवाहाटी ।
- .2 जानने की बातें- केशव सागर, राजपाल एण्ड संज, दिल्ली।
- .3 पाँच एकांकी- असम राष्ट्रभाषा प्रचार समिति, गुवाहाटी।
- .4सप्तसरोज- मुंशी प्रेमचन्द, सरस्वती प्रेस, इलाहाबाद।

सन्दर्भ ग्रन्थ:

- .1 शुद्ध हिन्दी- डॉ॰ हरदेव बाहरी,लोकभारती प्रकाशन,इलाहाबाद।
- .2 आधुनिक हिन्दी व्याकरण एवं रचना- डॉ॰ वासुदेवनन्दन प्रसाद, भारती भवन, पटना।
- .3 मानक व्यावहारिक हिन्दी व्याकरण तथा रचना- श्यामजी गोकुल वर्मा,आर्य बुक डिपो,नई दिल्ली।
- .4*असमीया हिन्दी लर्निंग कोर्स* रेपिडेक्स पब्लिकेशन्स।
- .5*शुद्ध हिन्दी कैसे सीखें* राजेन्द्र प्रसाद सिन्हा, भारती भवन, पटना ।
- .6Complete Hindi Beginner to Intermediate Course: Learn to read, write, speak and understand a new language with Teach Yourself Rupert Snell, John Murray Learning.
- 7. Spoken Hindi from Scratch Atharwa Madbhavi, Notion Press Publisher.

| .8Word Book 4 in 1 (Le | earn English, Hindi | , Assamese and | ' Bengali) – | G.B.D.'s | Editorial | Board, | Good |
|--------------------------|---------------------|----------------|--------------|----------|-----------|--------|------|
| Books Distributors Publi | ishers, Kolkata. | | | | | | |

(Syllabus 2)

Skill Enhancement Course 7: Spoken and Communication Hindi (Offered by the Department of Hindi) Guwahati College Open for All

Total Credit =3(33 Hours)

Unit 1:

Alphabet (Recognition & Pronunciation), Vowel Signs & Sign of ₹. Conjunct Letters (Part I), Conjunct Letters (Part - II), Numbers & Ordinals

Unit 2:

Reading Practice, Words of Everyday life, Conversation (Monologue & Dialogue), Creative Expression (Extempore)

Unit 3:

Writing Exercise (Creative), CV/Bio-data Preparation, Simple Letter writing (Informal & Formal)

Unit 4:

Grammar: Pronouns, Adjectives, Adverbs, Numbers, Gender, Case, Verb, Tense Direct & Indirect Speech, Simple Sentence, Compound Sentence, Complex Sentence

55. Teaching Skill

PAPER TITLE: - SKILLS ON PRACTICE TEACHING.

UNIT 1: Concept of teaching and teaching skills, Introduction of some important teaching skills, Phases of Teaching.

UNIT 2: Meaning, nature and importance of Lesson Plan, Criteria of good lesson plan, Herbartian Steps of Lesson Plan.

UNIT 3: Preparation of Lesson Plan for practice teaching (PRACTICAL).

56. Tools & Techniques for Local Handicraft Entrepreneurship

Unit- I

Entrepreneurship- Concepts, elements, determinants & importance of entrepreneurship. Entrepreneurs- Essential Qualities, characteristics, different types of entrepreneurs and entrepreneurship.

Unit-II

Levels of Entrepreneurship - Micro, Small & Medium. Indian business traditions & Entrepreneurship - Family, Group, Community Society. Traditional values & ethics in relation to business & culture of entrepreneurship.

Unit-III

Handicrafts Traditions of India - A historical background and its legacy for trade & commerce in handicraft products. Different types of handicrafts in practice in Assam,handicraft traditions of undivided Goalpara District and present position of handicraft inDhubri district.

Unit-IV

Tools & Techniques for establishment of Handicraft based business: Idea for new business, preparation of business plan, writing of project proposal, submission process of project report, detailing of location layout, raw material, marketing facilities, finance, online platform, ecommerce, market place, segment, competitors & rival.

Unit-V

Practical Training on Sales & Marketing, meeting with local craftsman & understanding realtime to real life production of handicraft items, visiting craft bazaars, handicraft fair forpractical selling to marketing experiences through internship programme and to meet real lifeentrepreneurs dealing in handicraft products.

Books and References

- l. Robert Hisrich, Michael peters, Dean Sheperd, Entrepreneurship, McGraw-Hill Education.
- 2. Desai Vasant Dynamics of Entrepreneurial Development and Management. HimalayanPublishing House Mumbai
- 3. Holt, David H. Entrepreneurship: New Venture Creation. Prentice Hall of India New Delhi.
- 4. Singh Nagendra P. Emerging Trends in Entrepreneurship DevelopmentASEED. New Delhi.

- 5. Ranjan Aditi Handmade in India Mapin publishing private limited. (for Library collection)
- 6. Ranjan M.P. Handmade in India: A Geographic Encyclopedia of Indian Handicrafts. Abbeville Publishing group. (for Library collection)
- 7. Chottopadhyaya Kamaladevi: Handicrafts of India. Indian Council for Cultural Relation.
- 8. Handique Krishna Jyoti: Handicrafts in Assam, Kalpaz publication.
- 9. Sarma Mrinmoy K: Traditional Crafts of Assam, Shipra Publications.

57. Tour Packaging Management

Skill Enhancement Course

Title -

Tourism Packaging Management

Course Objectives:

The Course will help the students to gain the knowledge about various concepts, Scope, nature and type of tourism. Further it will help the Students to evaluate the socio - economic, cultural and environmental impact of tourism Industry.

Course out Come:

- Study the fundamental concept of tourism.
- Understand the nature and types of tourism.
- Define the elements, classification and Historical development of Tourism.
- Identify the importance of tourism impacts.
- Elaborate the concepts of sustainable tourism development.

Unit - I : Introduction to tourism.

Unit - II : Tourism Principles, Policies and Practices.

Unit - III : Global tourism History.

Unit - IV : Travel Agency and tour Operations.

Unit - V : Tourism Entrepreneurship.

Reference Books:

- Archer, B.H. (1982) The value of Multipliers and their Policy.
- Bramwell, B. (1993) Tourism and the environment.
- Butler, R.W (1980) The Concept of Tourism: an evolving global approach.
- Evans, N. Cambell, B. & Stakeholders, G (2003) Strategic Management for travel and tourism.
- Freeman R.E (1983) Strategic Management: A Stoker holder approach.

58. Traditional Medicinal System in Mayong, Assam

Credit: 3 (L2,P2)

Total Marks: 100 (Therory - 50, Internal – 50)

Aim of the course: As in other indigenous societies, the practices of folk medicine have also been in continuance among the tribal and non-tribal societies of Assam since very early age. The Folk Medicinal system in Assam is known as 'BezaliSikitsa' and the healers or practitioners are popularly called as 'Bez', 'Kabiraz' or 'Oja'. The Bezes or Ojasuse both herbal medicines and versified incantations or charms for the removal of diseases and other evil spirits from the body of the patients. An enormous amount of the knowledge and practices of magic and medicine is still deeply rooted in some places of Assam among its indigenous societies. The proposed course on Traditional Medicinal System will deal with this problem.

Objectives of the Course:

The underlying objectives of the course are –

- i) to transmit the whole body of primitive knowledge and practices of traditional medicinal system of India to the next generation in an innovative and scientific way of thinking.
- ii) to create a group of knowledge based professional traditional medicinal practitioners for the wellbeing of the society at the grass root levels.
- iii) to create a group of skill man powers and entrepreneurs to develop herbal medicinal parks, production centers of herbal medicines, herbal medicinal plants, centers for traditional treatment etc.
- iv) to add value to this branch of Indian traditional knowledge system (People's Primitive Science) which has been continuing till today since time immemorial to mankind.
- v) to create an environment for reviving and developing the skill of this Indian system of traditional medicine.
- vi) to explore, understand and document the whole body of knowledge and practices of herbal medicines, its different ways and procedures of application traditionally continued in oral form among different indigenous societies.
- vii) to explore, understand and document the texts and contexts of the mantras (incantations) having therapeutic uses, its different ways and procedures of application traditionally continued in oral form among different indigenous societies.
- viii) to identify, understand and document all the plants and animal materials used by the folk healers as source of medicine.

Expected Output/Outcomes of the Course:

The output/outcomes expected from the course are –

- i) The Indian knowledge and practices of magic and herbal medicine could be revived and transmitted to the new generation in an innovative and scientific way of thinking.
- ii) A group of knowledge based, skilled professional traditional medicinal practitioners for the wellbeing of the society at the grass root levels could be created.
- iii) A group of skill man powers and entrepreneurs to develop herbal medicinal parks, production centers of herbal medicines, herbal medicinal plants, centers for traditional treatment etc. could be created.
- iv) Traditional herbal medicinal prescriptions (continued in oral form) could be explored and documented with their methods of preparation and application.
- v) Different diseases or ailments with their local names could be identified and documented with their symptoms and causes of the occurrence of diseases as viewed by traditional healers.
- vi) Medicinal plants and animal parts used as source of traditional medicine could be identified and documented with their local and scientific names. Which parts of the plants are used as medicine and for what types of diseases could also be explored and documented.
- vii) Case studies of traditional herbal healing and magical healing could be carried out with video documentation in a large scale.
- viii) Mantras (Incantations) having therapeutic uses (continued in oral form) could be explored and documented with their texts, contexts and procedures of application etc. etc.

Contents of the Course:

Chapter-1 Introduction – Meaning and Concept of different types of Traditional Medicinal Systems of the World

Chapter-2 History of Traditional Medicine in India

Chapter-3 History of Traditional Medicine in Assam and North-East India Chapter-4 Beliefs in the Causation of Diseasein Traditional Medicinal System- Natural Causes, Supernatural Causes

Chapter-5 Diagnostic Criteria in Traditional Medicinal System - Diagnosis from Symptoms, Diagnosis through Divination, Diagnosis with the help Interrogation, Diagnosis through Astrology, Diagnosis on the basis of Dreams, Diagnosis on the basis of some other Folk Beliefs etc.

Chapter-6 Methods of Healing in Traditional Medicinal System - Magico-Religious Healing- its different types, procedures of application etc., Herbal Healing- procedures of herbal preparation, the Diseases Treated and Herbal Medicines Recommended, Plants, Animals parts used as Medicine etc.

Chapter-7 The Folk Healers: Life Histories of Eminent Folk Healers of Assam/India, General Ethics of the Folk Healers, General Restrictions of Folk Healers, Social Standing of Folk Healers etc.

Chapter-8 Practical- Observation through participating in magic or folk healing related activities and rituals, In-depth Case studies of Magico-Religious Healing and Herbal Healing, Collection of treatment histories of the patients, Audio and video recording of magical and herbal treatments, interviews with expert herbalists or magicians, practice of herbal preparation etc.

Resource Persons for the Course:

Folk healers, Eminent Herbalists, Magic Practitioners, Botanist, Zoologist, Psychologist, Anthropologist, AyurvedicMedical Practitioners, Yuga Masters, Researchers of Traditional Medicinal System etc.

References books:

Will be framed later on.

Syllabus Committee:

Advisor:

Dr Mahananda Borah, Principal, Mayang Anchalik College, Morigaon, Assam.

Member and Coordinator:

Dr Utpal Nath, Assistant Professor, Department of Economics, Mayang Anchalik College, Morigaon, Assam

59. Understanding Psychology

--By Laharighat College

Unit-I: Nature and scope of study of Educational Psychology:-

Involve concept of psychology, characteristics of psychology different branches of psychology, relation between education and psychology, need of the study of educational psychology, need of the study of educational psychology for the teacher.

Unit-II:- Heredity and Environment:

what is heredity, theoretical study and analysis onheredity and environment, types environment relative importance of heredity and environment role of the Teacher in regard to environment.

Unit-III: Memory and forgetting:-

what is memory characteristics of memory, factors of memory, memory trace, marks of good memory, improve of memory, forgetting, cause of forgetting theories of forgetting.

Unit-IV: Thinking reasoning and problem solving:-

Nature of thinking, constituent characteristics of thought, thought and imagination types of thinking reasoning meaning definition, types of reasoning scientific method of problem solving.

60. Web Front-end Designing

Title: Web Front-end Designing-1(HTML)

Target Group: Open for all (Arts, Science and Commerce)

Theory= 2 Credits, Practical = 1 Credit

Learning objective(s):

- (1) To introduce the basic concepts and techniques of front end web designing.
- (2) To enable students to apply the basic concepts and techniques of front end web designing.

Course outcome:

After studying this course, students will be able to design interactive web pages.

Unit wise Syllabus:

THEORY

UNIT 1: (3 Hours)

The Basics Introduction to HTML, the Head, the Body, Colors, Attributes, Check box, Radio Button, Text, TextArea, Lists, ordered and unordered

UNIT 2: (4 Hours)

HTML Formatting: New Paragraph, Line Break, Blank Space, Preformatted text, Div element Bold text, Important text, Italic text, Emphasized text, Marked text, Small text, Deleted text, Inserted text, Subscript text, Superscript text, HTML quotations, HTML Comments, HTML colors

UNIT 3: (3 Hours)

Links Introduction, Relative Links, Absolute Links, Link Attributes, Using the ID Attribute to Link within a Document

UNIT 4: (3 Hours)

Images: Putting an Image on a Page, Using Images as Links, Putting an Image in the Background

UNIT 5: (5 Hours)

Tables: Creating a Table, Table Headers, Captions, Spanning Multiple Columns, Styling Table

UNIT 6: (4 Hours)

Forms: Basic Input and Attributes, Other Kinds of Inputs

PRACTICAL / LAB WORKSHEET TO BE PERFORMED (22 hours)

1. Create an HTML document with the following formatting options:

| (i) | Bold |
|-------|---------|
| (ii) | Italics |
| (iii) | |

- (iv) Underline
- Headings (Using H1 to H6 heading styles)
- (v) Font (Type, Size and Color)
- (vi) Background (Colored background/Image in background)
- (vii) Paragraph
- (vii) Line Break
- (ix) Horizontal Rule
- (x) Pre tag
 - 2. Create an HTML document which consists of:
 - (i) Ordered List
 - (ii)Unordered List
 - (iii) Nested list
 - (iv) image
 - 3. Create an HTML document which implements Internal linking as well as External Linking.
 - 4. Create a table using HTML which consists of columns for Roll No., Student's name and grade.

| Result | | | | |
|---------|------|-------|--|--|
| Roll No | Name | Grade | | |
| | | | | |
| | | | | |

5. Create a Table with the following view:

| | Plac | e an Image Here |
|--|------|-----------------|
| | | |

- 6. Create a form using HTML to collect personal information.
- 7. Create HTML documents (having multiple frames) in the following three formats:

| Frame 1 |
|---------|
| Frame 2 |

| Fran | me 1 |
|---------|---------|
| Frame 2 | Frame 3 |

Reading List:

- a) David DuRocher -HTML and CSS quickstart guide
- b) <u>https://www.w3schools.com/html</u>

61. Workshop Practice (Mechanical, Carpentry and Electronics)

Skill Enhancement Course 10: Creative electronics workshop skills (Offered by the Department of Physics) Guwahati College

Open for All

Unit: 1

Introduction to electronic workshop: Familiarization/Application of testing instruments and commonly used tools (multimeter, function generator, power supply, digital cathode ray oscilloscope (DSO), Breadboard, etc. Soldering techniques (soldering iron, desoldering pump, wrapping, crimping), pliers, cutters, wire strippers, screwdrivers, tweezers, etc.]

Unit 2:

Introduction to electronics components: familiarization/identification of electronic components with specification (functionality, type, size, color coding, package, symbol, cost, etc.), Active, Passive, Electro-mechanical, Wires, Cables, Connectors, Fuses, Switches, Relays, Displays, etc.

Unit 3:

Measurement: Measuring of various electrical components like resistance, voltage, current, frequency, phase difference, amplitude, power, and power factor for a. c. supply, Use of various analog, digital meters, Signal Generator, DSO, etc, testing of IC's using IC tester.

Unit 4:

Interconnection methods and soldering practice in general purpose PCB, Crimping, Breadboard assembling of simple circuits – Soldering and testing of electronic components and circuits, safety precautions.

Unit 5:

Assembling of electronic circuit/system on a general-purpose PCB, test and show the functioning (Any Two circuits)

- 1. Fixed/variable and dual voltage power supply
- 2. Square wave generation using IC 555 timer in IC base.
- 3. Sine wave generation using IC 741 OP-AMP in IC base.
- 4. RC coupled amplifier with transistor BC107
- 5. Portable PM10 PM2.5 Pollution Analyzer
- 6. DC Motor Speed Control Using Arduino & Pulse Width Modulation(PWM)

Skill Enhancement Course 11: Certificate Course in Tally

Skill Enhancement Course 12: Certificate Course in Human Rights

Skill Enhancement Course 13: Hands on Training of Basic Chemistry Softwares

Skill Enhancement Course 14: News Writing and Anchoring

Skill Enhancement Course 15: Translation and Translation Technique

Skill Enhancement Course 16: Nursery Management Skill Enhancement Course 17: Terrace Gardening

Skill Enhancement Course 18: Organic Farming and Hydroponic Farming

62. Abrittikala/Art of Recitation

-- By Ratnapith College

প্রথমষান্মাষিক

আবৃতিকলা (Skill Course) Syllabus

(উদ্দেশ্য: এইপাঠ্যক্ৰমৰজৰিয়তেকবিতাআবৃতিৰতাত্বিকআৰুপ্ৰায়োগিকজ্ঞানপ্ৰদানৰপ্ৰয়াসকৰাহব)

প্ৰথমগোট : আবৃতিৰইতিহাসআৰুপৰম্পৰা ; আবৃতিৰউপস্থাপন

দ্বিতীয়গোট : আবৃতিৰপ্ৰস্ততি : কাব্যবোধ, ছন্দআৰুযতিৰধাৰণা, স্মৃতিচাৰণ

তৃতীয়গোট : আবৃতিৰকৌশল : স্বৰক্ষেপন, স্বৰকম্পন, সঠিকউচ্চাৰণ, সুৰআৰু

লয়ৰপ্ৰয়োগ

চতুর্থগোট : ব্যৱহাৰিকপৰীক্ষা :

জ্যোতিপ্ৰসাদআগৰৱালা/ নৱকান্তবৰুৱাযিকোনো

এটাকবিতাৰআবৃতি।

সহায়কগ্রন্থ (নির্বাচিত)

অসমীয়াকবিতাৰছন্দ : মহেন্দ্ৰবৰা

কবিতাৰক্লাছ : নীৰেন্দ্ৰনাথচক্ৰৱৰ্তী

জ্যোতিপ্ৰসাদৰচনাৱলী : সত্যেন্দ্ৰনাথশৰ্মা (সম্পা:)

নৱকান্তবৰুৱাৰকবিতা: তীৰ্থফুকনসম্পা:)

63. Mental Health and Hygiene

Total Marks = 100 (Practical 80+ Theory 20 Marks)

Course objectives: After completion of the Course the learner will be able to understand the concept of mental health and development of mental health and the Characteristics of a mentally healthy persons. The relationship between mental health and hygiene will be cleared. They will be able to learn the factors, principles which promoted mental health and the role of school and society for providing proper mantel health. It will also help the learner to develop a positive attitude on life which is most important in today's society.

Unit -I. Concept of mental Health (Meaning, definitions and Scope of Mantal Health, Signs of mentally healthy person)

Unit -2. Concept of Mental Hygiene (Meaning, Nature, Aims and objectives and function of mental Hygiene)

Unit -3: Need and importance of mantel health and Hugine :

Unit-4: Relationship between Education and Mantel Health

(Role of School, home and Society, Mental Health of teachers)

Unit -5. Preservation of Mental Heaths and Hygiene (Contribution of the Educational psychology (Meaning, Nature and importance of educational psychology)

Unit-6: Various ways of stress Management (Role of Yoga, Steps to create a beautiful mind)

64. HistoricalTourisminNorthEastIndia

Courseobjective:

After completing this course, students will be able to

- Take part in the Tourism industry in North East India as tourist guides as well as engage in destination research with special reference to the historical monuments, cultural and ecological elements and places of the north east India country as tourist and heritage sites of the nation.
- They will be able to relate to the growing vocation of tourism as an industry and the

applicability of historical knowledge for its growth.

In-semester assessment: Students shall carry out a small project (submission not less than 2000 words) based on survey of an area or monument. The project should try to unearth the tourism potential of the surveyed area or monument. The project may also be on an existing tourist site. No sessional examination is required for this paper.

| Unit: I | Contact Classes: 8 | Non-contact classes: 2 | Marks: 25 |
|---------|--------------------|------------------------|-----------|
|---------|--------------------|------------------------|-----------|

Theoreticalaspectsoftourism, Elementary geography and biodiversity of North East India

- [a]: Tourism-Concept, meaning and significance
- [b] :Differenttypesof Tourism
- [c]: Physiographical divisions, waterbodies and climatic conditions
- [d]:Importantwildlifehabitats:Kaziranga,Manas,Orang,Nameri,DibruSaikhowa, Namdapha, Keibul Lamjao, Rain forests of Assam.

| Unit: II Contact Classes: 8 Non-contact classes: 2 Marks: 25 |
|--|
|--|

AncientremainsandImportanttouristplacesoftheNorth-East

- [a] :Ancientremains:Goalpara,Ambari,Tezpur,Deopahar,Malinithan,Doyang-Dhansiri Valley
- [b] :Touristplaces:Shillong,Cherapunjee,Aizwal,Gangtok,Kohima,Tawang,PoaMecca (Hajo), Azan Pir Dargah, Jatinga

| Unit: III Contact Classes: 8 | Non-contact classes: 2 | Marks: 25 |
|------------------------------|------------------------|-----------|
|------------------------------|------------------------|-----------|

ArchitecturalHeritage

- [a] :Dimapur,Kasomari,Maibong,Khaspur
- [b]: Charaideo, Garhgaon, Sivas agarand Rangpur
- [c]:Ujayantapalace,NeerMahal
- [d]: Kamakhya, Hayagriva Madhava, Tripura Sundari Temple, Rumtek monastery
- [e] :Kanglafort

| Unit: IV | Contact Classes: 8 | Non-contact classes : 2 | Marks: 25 |
|----------|--------------------|-------------------------|-----------|
| | | | |

- [a] :Festivals-Bihu, Ali AyeLrigang, Mopinfestival, Tai—Buddhistfestivals in Assam
- [b]: Bhaona, Rascelebration in Majuli
- [c]: Fairs-Jonbil Mela, Ambubachifair at Kamakhya
- [d]: Touristfestivalsbasedonethnicculture—HornBillfestival, Sangaifestival, DihingPatkai festival

Readings:

Bezboruah, M: Tourismin North East India

Bora, S..., & Bora, M.C: *The Story of Tourism: An Enchanting Journey through India's North – East*, UBSPD, Delhi, 2004.

:ParyatanarRuprekha:UttarPurbanchalarItihasAruSanskritir Patabhumi

Bhatia, A.K.: International Tourism-Fundamentals and Practices, New Delhi, 1997

:Tourismin India

Gogoi, Atanu: Paryatan Aru Uttar Purbanchal, Bani Mandir, Guwahati, 2006

Nath, R.M.: The Background of Assamese Culture, Guwahati, 1978

Sarma, P.: Architecture of Assam, Delhi-1988

Ahmed, Kamaluddin: The Artand Architecture of Assam, Spectrum Publication, Guwahati, 1994.

Bhattacharya, P.: Tourismin Assam, Bani Mandir, Guwahati, 2004

Neog, M.: Pavitra Asom, LBS, Guwahati

: Asamiya Sanskritir Ruprekha, Guwahati - 1970

Boruah, P.: Chitra-Bichitra Asom, Guwahati, 2003

Taher&Ahmed:GeographyofNorthEastIndia,ManiManikPrakash,Guwahati,2010.
