

ENVIRONMENTAL SCIENCE
(Arts/ Science/ Commerce)
SEMESTER – II
AECC – II

Full Marks: 100
End Sem: 80 Marks
Mid Sem: 20 Marks

The paper will be taught by 05 (five) Departments, namely – Geography, Chemistry, Botany, Zoology, Economics

UNIT – I (The Environment) – To be taught by Geography Department

- (i) The Atmosphere, the Hydrosphere, the Lithosphere and the Biosphere
- (ii) Ecology & Eco-system
- (iii) Biogeochemical Cycles (Carbon Cycle & Nitrogen Cycle)
- (iv) Natural Disasters and their Management.

UNIT – II (Environment Pollution) : To be taught by Chemistry Department

- (i) The Air Pollution
- (ii) The Water Pollution
- (iii) The Soil Pollution
- (iv) The Noise Pollution
- (v) The Thermal Pollution
- (vi) The Radiation Pollution

UNIT – III (Population Ecology): To be taught by Botany & Zoology Departments

- (i) **Botany Department:** Individuals, Species, Community Population and Control methods of population, Food web.
- (ii) **Zoology Department:** (a) Communicable diseases and their transmission
(b) Non-communicable diseases.

UNIT – IV (Environment Movements in India): To be taught by Economics & Botany Departments

- (i) **Economics Department:**
 - (a) Environment degradation & sustainable development.
 - (b) Urbanization and its effect on Society.
 - (c) Grass Root Environmental Movements in India.
 - (d) Role of Women.
 - (e) Environmental Movements in Odisha.
- (ii) **Botany Department:**
 - (a) State Pollution Control Board.
 - (b) Central Pollution Control Board.

UNIT – V (Natural Resources): To be taught by Geography & Zoology Departments

- (i) **Geography Department:**
 - (a) Conservation of Natural Resources
 - (b) Soil Erosion and Conservation.
- (ii) **Zoology Department:**
 - (a) Management & Conservation of Wild Life.
 - (b) Environmental Laws : The Wildlife (Protection) Act, 1972
: The Water Act, 1974
: The Air Act, 1981
: Environment Protection Act, 1986

SKILL ENHANCEMENT COURSE (SEC)
HORTICULTURE
(Science)
(SEMESTER – IV)

Total Marks – 100
Mid. Sem. – 20 marks
End Sem. – 80 marks

(Each unit carries equal marks)

INTRODUCTION: Horticulture is the mainstream of agriculture. It is an applied science dealing with fruits, vegetables and ornamental flowers. It is an extremely diversified field with nearly unlimited career opportunities in a variety of job settings. A large number of jobs require knowledge and training in horticulture.

OBJECTIVES:

- To know about concept and division of Horticulture.
- To have understanding on plantation of crops, spices, Medicinal and Aromatics crops
- To study details of cultivation aspects of different divisions of horticulture

Expected Outcome:

- The students can have a good foundation on horticulture which will help them to be employed in different department of Agriculture
- They can be self-employed and can have their own entrepreneurship.

UNIT – I: Horticulture

- Meaning & definition and division of Horticulture, Scope, branches of horticulture.
- Importance of plantation crops; Spices, medicinal and aromatic crops grown in India as well as in Odisha.

UNIT – II: Details of cultivation aspects

Plantation crops:

(With reference to origin, climate, soil, varieties, land preparation and transplantation)

- Coconut, Cashewnut and Arecanut

Spices:

(With reference to origin, climate, soil, varieties, land preparation and transplantation)

- Blackpeper, Coriander, Cinnamon and Cardamom

UNIT – III: Medicinal Plants

(With reference to origin, climate, soil, varieties, land preparation and transplantation)

- Aloe vera, Brahmi, Aswagandha.

UNIT – IV: Landscaping and Garden Design

Planning and Layout (parks & avenues), gardening traditions: Indian, European, Mughal Gardens, Urban forestry.

UNIT – V: Aftercare of Plantation of variety of crops:

Intercultural, Nutrient management, Irrigation, Moisture conservation, Integrated pest and disease management, Intercropping, Harvest and post-harvest care, Storage and processing and Value addition and by product utilization

Books Recommended:

1. The Fundamentals of Horticulture – Cambridge University Press
2. Horticulture, Principle and Practices – George Acquaah, 4th Edition, 2008
3. Green House Operation and Management – Pearson, New international Edition, 7th Edition, November 2013
4. Plant Science, Growth, Development and Utilization of Cultivated Plants, 5th Edition.

SKILL ENHANCEMENT COURSE (SEC - II)
INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)
(Arts/ Science/ Commerce)
SEMESTER – IV

Mid Sem. – 20
End Sem. – 80
Total Marks – 100

UNIT – I

Basics of Computer: Definition of Computer, Characteristics and Applications of computer, Block Diagram of Digital Computer, Classification of Computers based on size and working, Central Processing Unit, I/O devices, Memory (Primary, Auxiliary and Cache), Storage devices, Software, Hardware, Firmware and peopleware, Types of Software.

UNIT – II

Multimedia: Definition, Multimedia Computer System, Multimedia components (Text, Graphics, Animation, Audio, Video) Multimedia applications.

Application of Computer in Education, Business and Hospital, Introduction of ICT, Components of ICT.

Number System, Conversion from one to other NS, Binary Addition, Subtraction, Codes (ASCII, BCD, EBCDIC)

UNIT – III

Computer Network: Basic Elements of a Communication System, Data Transmission modes, Data Transmission Speed, Transmission Media, Network Topologies, Types of Networks, Communication Protocols, Introduction to OSI Model.

UNIT – IV

Fundamental of Internet: Definition, History, Basic services (e-Mail, FTP, Telnet, Usenet, WWW), www browsers, Uses of Internet, Search Engines, Types of search engines (Crawler based, Directories, Hybrid, Meta Search engine), examples of some popular search engines.

UNIT – V

MS WORD: Features of MS WORD, MS WORD window components, Creating, Editing, Formatting and Printing of documents, Headers and Footers, Insert/ Draw Tables, Borders and shadings, Inserting Symbols, Shapes, Wordart, Page Numbers, Spelling and Grammer, Thesaurus, Mail Merge.

MS POWERPOINT: Features of PowerPoint, Creating a blank presentation, creating a presentation using a template, Inserting and deleting slides in a presentation, adding clipart/ pictures, inserting other objects, audio, video, Slide transition, Custom Animation.

MS EXCEL: Overview of Excel features, Creating new worksheet, Selecting Cells, Entering and editing text, numbers, formulae and functions, Referencing cells, Inserting Rows/ Columns, Changing column width and row height, Auto format, Changing Font size, Colours, Shading, Creating Graph.

Books Recommended:

1. Computer Fundamentals – Pradeep Sinha & Preeti Sinha
2. MS Office – S. S. Srivastav
3. MS Office 2007 – Ramesh Bangia, Khanna Publishing

SKILL ENHANCEMENT COURSE (SEC)
MODERN OFFICE MANAGEMENT (MOM)
(Arts/ Commerce/ Science)
(SEMESTER – IV)

Mid Sem – 10 Marks
End Sem – 60 Marks
Practical – 30 Marks
Total Marks- 100

(Each unit carries equal marks)

UNIT – I: Introduction

10 Lectures

- Meaning purposes, functions and importance of an Office
- Office Manager: Qualification, functions, duties and responsibilities of an Office Manager

Office Layout & Environment

- Meaning of Layout, Principles of layout.
- Types of Office i.e. Centralized and Decentralized Office, Open & Closed Office

UNIT – II: Office Management

15 Lectures

- Meaning of Office Management.
- Front Office Management
- Customer Relationship
- Relation with superior/subordinate
- Various departments of a modern office.

Postal Services:

- Types of Postal Services, Inward Mail, Outward Mail, Mailing different types of letters.

UNIT – III: Office Correspondence & Employment

15 Lectures

- Noting & Drafting: Meaning & Importance
- Business Correspondence – Style, Design

Drafting of Different types of letters:

- Drafting business letters, Govt. Letters
- Parts of a business letter – Heading, Inside, Address, Salutation, Body of a letter, Complimentary close, Signature, Enclosures, Post Scripts etc.

UNIT – IV: Fundamentals of Computer (Practical)

- Computer History, Basis, Software, Hardware, devices parts of a computer, word processing (in brief), Spread sheet, PowerPoint Presentation (in shortcut)

Use of Computer in Office

- Use of computer in office activities, drafting of letters, documentation of files in computer.
- Use of Internet in office, Electronic Mail Service, Copy, Paste, Creating a folder.

UNIT – V: Computer Application in Career (Practical)

- Selection of Career, Searching a Job through computer, Preparation of CV in a computer.
- Employment Exchange, Placement agency, Media

N.B.: *The Mid Sem exam will be of 10 marks & End Sem will be of 60 marks out of Unit- I, II & III. The practical examination will be held at end sem from Unit-IV & V which carries 30 marks (Practical – 20 Marks, Viva – 10 Marks)*

SKILL ENHANCEMENT COURSE (SEC)
TRAVEL AND TOURISM MANAGEMENT (TTM)
(Arts/ Science/ Commerce)
SEMESTER – IV

Mid Sem – 20
End Sem – 80
Total Marks – 100

(Each unit carries equal marks)

INTRODUCTION: The Indian tourism and hospitality industry has emerged as one of the key drivers of growth among the services sector in India. Tourism in India is a potential game changer. It is a sun rise industry, an employment generator, a significant source of foreign exchange for the country and an economic activity that helps local and host communities.

OBJECTIVES:

- To understand the nature and scope of tourism in India with reference to domestic and international tourist.
- To have thorough knowledge on tourism products both natural and man-made.
- To understand social, cultural and economic importance of tourism.

EXPECTED OUT COMES:

- The students can be employed as tourist guide & managers of Tourism Industry
- The students can be self-employed by selling tourism products and managing private entrepreneurship.

UNIT – I (Edn.)

- Meaning, definition and scope of tourism, (Domestic and international tourist, inbound and outbound tourists) Historical Background,
- Nature and Characteristic, Tourism product (natural & man-made),

UNIT – II (Soc.)

- Tourism - Types, Motivational factors & barriers in tourism, MICE, Socio-cultural and economic importance of tourism.

UNIT – III (Hist.)

- Jaina Sites – Khandagiri, Udayagiri
- Buddhist Sites – Ratnagiri, Lalitagiri, Udayagiri

UNIT – IV (Pol. Sc.)

- Accessibility (mode of transport Road, Rail, Air & Water), Accommodation - types of accommodation (primary and supplementary),

UNIT – V (Hist, Edn, Soc)

- Temples – Lingaraj, Jagannath, Konark
- Moral, Spiritual & Aesthetic importance of the religious sites.
- Sociological importance of tourist site in Odisha.

Books Recommended:

1. Travel & Tourism Management by Md. Abu Barkat Ali.
2. Tourism Management by Sourav Dixit.
3. Political & Cultural History of Odisha by Sisir Ku. Panda
4. History of Odisha by Atul Chandra Pradhan.