Curriculum of the Certificate / Add on Programmes and Assessment procedure

18-19, 19-20, 20-21, 21-22, 22-23: Yoga certificate course

CERTIFICATE COURSE IN YOGA

Preamble

Yoga is an invaluable gift of ancient Indian tradition. Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on bringing harmony between mind, body; thought and action; restraint and fulfilment; harmony between man and nature and a holistic approach to health and well-being. Yoga is not about exercise but to discover the sense of oneness with ourselves, the world and Nature. It is an art and science for healthy living.

The word "Yoga" is derived from the Sanskrit root meaning "to join", "to yoke" or "to unite", yuj. According to Yogic scriptures, the practice of Yoga leads to the union of individual consciousness with universal consciousness

Yoga is becoming popular day by day. A wave of yoga is sweeping across the globe. In this programme we introduce yoga as a science of Holistic living and not merely as yoga postures. During the programme the student is taught the basic concepts of Yoga for wellness. This programme looks to train enthusiasts to teach general public wellness through yoga.

I. Title of the Programme:

The programme shall be called "Certificate Course in Yoga"

II. Aim of the Programme

The aim of the programme is to spread "Wellness through Yoga"

III. Objectives of the programme

- To introduce basic wellness principles and practices of Yoga to common people
- To bring awareness of the fundamentals of Yoga for wellness in their daily lives
- To bring peace and harmony in the society at large by introducing the Yogic way of life.
- To create teachers to teach Yoga for wellness in the society

IV. Duration

The minimum duration of the programme will be SIX months

V. Eligibility

The candidate should have completed 12th Star dard from a recognized board or equivalent.

VI . Scheme of Teaching and Examination

Sl. No.	Subject Code	Subject Title	Periods Per Week				Evaluation Scheme		Final Assessment	Subject Total
			L	T	P	Credit	CT	TA/PR		
1	CYTH 101	Introduction to Yoga and Yogic Texts	3	1	-	4	30	(20-10)	70	100
2	CYTH 102	Human Anatomy & Physiology	3	1	-	4	30	(20-10)	70	100
3	CYTH 103	Yoga for Wellness	3	1	-	4	30	(20-10)	70	100
4	CYTP 104	Teaching Techniques	1	1	-	2	15	(10-05)	35	50
5	CYTP 105	Yoga Practical	-	-	8	4	30	(20-10)	70	100
6	CYFW 106	Field Work	-	-	8	4	30	(20-10)	70	100
			Total			22			Total	550

L= Lecture T=Tutorial P=Practical Work CT=Cumulative Tests TA= Teachers Assessment PR= Practical Record

VII. Programme Details

Subject Title: Introduction to Yoga and Yogic Texts

Subject Code CYTH 101

Objectives:

The above programme has been designed with the following objectives

i. To equip the learners with a brief understanding about yoga and its stream
ii. To give an over view of Hatha Yoga and Patnajala Yoga.

Total Number of Hours: 60		Theory	Tutorial	Practical
Credits		3	1	0
Hours/ week		3	1	0
SCHEME OF EXAMINATION				
Total Marks: 100				
Theory : 100			Practical :	
Final Exam	Internal Assessment (CT+TA)		Final Exam :	Internal Assessment (CT+TA/PR)
70	30		NA	NA

Unit-1: General Introduction to Yoga [10 Hrs.]

Brief to origin of Yoga, History and Development of Yoga: Vedic Period, Classical Period, Post classical period, Modern Period. Etymology and Definitions of Yoga in classical Yoga texts. Meaning, Aim and Objectives of Yoga, Misconceptions about Yoga; True Nature of Yoga; Principles of Yoga; Basis of Yoga.

Unit-2: Streams of Yoga [10 Hrs.]

Basic concepts of Bhakti Yoga, Jnana Yoga, Karma Yoga and Raja Yoga and Unity in Diversity;

Unit-3: Introduction to Hatha Yoga and its texts [20 Hrs.]

Hatha Yoga: Origin, Meaning, Definition, Aim, Objectives and Misconceptions; Hatha Yoga: Its Philosophy and Foundations; History and development of Hatha Yoga, Hatha Yoga practices: Asanas, Pranayama and Asta kumbhakas, Dharana on the five elements; Mudras and bandhas, Satkarmas (the set of six cleansing techniques); Briefing on Important Hatha Yoga texts (Gheranda Samhita, Hata Yoga Pradeepika, Shiva Samhita, Hata Ratnavali).

Unit-4: Introduction to Patanjala Yoga [20 Hrs.]

Brief to Maharshi Patanjali and Patanjala Yoga Sutra; Ashtanga Yoga : Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi; Definition of Yoga according to Patanjali; Concept of Chitta-Bhumi; Citta-Vritties and their classification, Citta-Vritti Nirodhopaya (Abhyasa and Vairagya); Relationship between the two schools of Yoga (Patanjali and Hatha Yoga).

Subject Title: Human Anatomy & Physiology

Subject Code: CYTH102

Objectives:

The programme has the following objectives

i. To give a basic understanding about the structure, functions with respect to various systems of the body for equipping the students to understand the benefits and contraindications of yogic postures in a better way.

Total Number of Hours: 60		Theory	Tutorial	Practical
Credits		3	1	0
Hours/ week		3	1	0
SCHEME OF EXAMINATION				
Total Marks: 100				
Theory : 100		Practical :		
Final Exam	Internal Assessment (CT+TA)	Final Exam		Internal Assessment (CT+TA/PR)
70	30	NA		NA

Unit-1: Cell and Tissue, Musculo Skeletal and Digestive system [15Hrs.]

Structure and function of cell; Homeostasis; Introduction to tissues and types; Anatomy of the Skeleton; Classification of bones; Types of joint and muscles in the body; Digestive system: Mouth, Oral cavity, Pharynx, Oesophagus, Stomach, Large & small intestine, anus; Associated glands - Liver, Pancreas, salivary glands

Unit-2: Excretory, Respiratory and Cardiovascular system [15Hrs.]

Basic understanding about different stages of digestion; absorption; Function of Kidney, Urinary Bladder and Urethra; Respiratory system: Nose, nasal cavity, pharynx, Trachea, Larynx, bronchiole, lungs; Brief understanding about transport of respiratory gases; Composition and function of blood - Plasma, RBC, WBC and Platelet; Cardiovascular system: Structure of heart, its chamber, valves, function of arteries, vein and capillaries.

Unit-3: Neuro Endocrine system [15Hrs.]

Structure of: human brain and spinal cord; Basic understanding about Sympathetic and Para sympathetic; Structure and function: eye, ear, nose, tongue and skin; Basic understanding about the functions of various endocrine glands-pituitary, thyroid, parathyroid, adrenal, ovary and testes.

Unit-4: Lymphatic and Immune system [15 Hrs.]

Lymphoid organ: Bone marrow, Thymus, Spleen, Lymph node, Composition and function of lymph; Immunity in brief, Types of immunity: Innate immunity and acquired immunity

Subject Title: Yoga for Wellness

Subject Code GYTH103

Objectives:

The above programme has been designed with following objectives

i. To give an introduction to the concept of wellness
ii. To give an understanding of wellness and illness with reference to the yogic texts
iii. To give a basic knowledge of Yoga as preventive health care and Yogic life style analysis.

Total Number of Hours: 60		Theory	Tutorial	Practical
Credits		3	1	0
Hours/ week		3	1	0
SCHEME OF EXAMINATION				
Total Marks: 100				
Theory : 100			Practical :	
Final Exam	Internal Assessment (CT+TA)		Final Exam	Internal Assessment (CT+TA/PR)
70	30		NA	NA

Unit-1: Concept of Wellness and Illness [15 Hrs.]

Concept of health (Modern and Ancient View); Concept of Wellness and illness (Modern and Ancient View); Concept of Body (Pancha Kosha according to Taittiriya Upanishad); Potential causes of illness according to Yoga Vasishta - Concept of Adhi and Vyadhi and their consequences on the body

Unit- 2: Yogic Life style prescription according to various Yogic Texts [15 Hrs.]

Remedial measures for Wellness suggested in Yoga Vasistha; Yogic attitude (Maitri, Karuna, Mudita and Upeksha) and practices for Mental Hygiene; Psycho-social environment: its role and importance for wellness; (Patanjali); Role of yoga as mind-body medicine with reference to Yogic Texts. Role of yoga in transforming the life style; Health and Yoga according to Gheranda Samhita; Ghatastha yoga in the context of Gheranda Samhita and its significance

Unit- 3: Yogic Concept of Holistic Health [15 Hrs.]

Total Human Development through Yogic practices for Pancha Kosha (Annamaya Kosha, Pranamaya Kosha, Manomaya Kosha, Vijnanamaya Kosha and Ananda maya Kosha) and its integration with Ashtanga Yoga of Patnajali.

Unit – 4: Yoga as Preventive Health Care [15 Hrs.]

Concept of stress according to modern science and Yoga; Stress as the cause for illness; Role of Yoga in Stress management: Holistic approach of catering to moderation in eating (Yogic Diet), sleeping (rhythm of the nature), working (the sense of duty as per BG), entertainment (moderation), change in life style;

Subject Title: Teaching Techniques

Subject Code: CYTP104

Objectives:

The above mentioned programme has the following objectives

i. To give an overview of Yoga teaching techniques to the students
ii. To introduce to class management and lesson planning
iii. To introduce educational tools of yoga teaching

Total Number of Hours: 60		Theory	Tutorial	Practical
Credits		0	0	0
Hours/ week		1	1	0
SCHEME OF EXAMINATION				
Total Marks: 50				
Theory : NA		Practical :-50		
Final Exam	Internal Assessment (CT+TA)	Final Exam		Internal Assessment (CT+TA/PR)
NA	NA	35		15

Unit-1: Principles and methods of teaching yoga [15 Hrs.]

Teaching and Learning: Concepts and Relationship between the two; Principles of Teaching: Levels and Phases of Teaching, Quality of perfect Yoga Teacher; Yogic levels of learning, Vidyarthi, Shishya; Meaning and scope of Teaching methods, and factors influencing them; Sources of Teaching methods; Role of Yoga Teachers and Teacher training.

Unit-2: Basics of yoga class management and Educational Tool [15 Hrs.]

Practice of Yoga for Beginners; Techniques of Individualised teaching; Techniques of group teaching; *Yoga classroom:* Essential features, Area, Sitting arrangement in Yoga class etc.; Class room problems: Types and Solutions, Characteristics and essentials of good Yoga teaching; Time table: Need, Types, Principles of Time table construction; Time Table for Yoga teachings.

Subject Title: Yoga Practicum

Subject Code CYYP 105

Objectives:

The above mentioned programme has been designed with following objectives

i. To introduce Yogic postures and Practices
ii. To introduce the practices of Shatkarmas, Suryanamaskar, Asanas, Breathing practices and Pranayama

Total Number of Hours: 120	Theory	Tutorial	Practical
Credits	0	0	4
Hours/ week	0	0	8

SCHEME OF EXAMINATION			
Total Marks: 100			
Theory : NA		Practical :	
Final Exam	Internal Assessment (CT+TA)	Final Exam	Internal Assessment (CT+TA/PR)
NA	NA	70	30

Unit-1: Shatkarmas [30 Hrs.]

Dhauti (Kunjal), Neti (Sutra and Jala), Kapalbhati, Agnisara

Unit-2: Suryanamaskar [15 Hrs.]

Unit-3: Asanas (yogic postures) [45 Hrs.]

Standing postures

i) Ardhakati chakrasana, ii) Ardha chakrasana, iii) Padahastasana, iv) Hastottanasana, v) Vriksasana, vi) Kati Chakrasana, vii) Trikonasana, viii) Parivritta trikonasana

Sitting postures

i) Padmasana, ii) Bhadrasana, iii) Vajrasana, iv) Kagasana, v) Yoga Mudrasana, vi) Ushtrasana, vii) Sasankasana, viii) Uttana Mandukasana, ix) Gomukhasaa, x) Ardhamatsyendrasana, xi) Paschimottanasana, xiii) Supta Vajrasana

Prone postures

i) Bhujangasana, ii) Salabhasana, iii) Dhanurasana, iv) Makārasana

Supine postures

i) Uttanapadasana, ii) Ardh Halasana, iii) Setubandhasana, iv) Sarvangasana, v) Halasana, vi) Mayurasana, vii) Chakrasana, viii) Matsyasana, ix) Setubandhasana, x) Shavasana

Balancing postures

i) Vrikshasana, ii) Garudasana, iii) Namaskarasana, iv) Natarajasana

Unit-4: Breathing practices (for rectification of breathing pattern) [15 Hrs.]

Breathing Practices: i) Hands in and out, ii) Hands stretch, iii) Ankle stretch, iv) Legs rising; v) Rabbit breathing; vi) Tiger breathing, vii) Breath awareness, viii) Sectional breathing: Abdominal, Thoracic and Clavicular breathing;

Unit-5: Pranayama practices [15 Hrs.]

Pranayama Practices: i) Nadi shuddhi, ii) Surya Bhedana, iii) Bhastrika, iv) Ujjai, v) Cooling Pranayama (Sitali, Sitkari and Sadanta), vi) Bhramari

Subject Title: Field Work

Subject Code: CYFW 106

Objectives:

i. To teach and support practice simple worksheet and presentations
ii. To inculcate the practise of teaching with internship to junior students in certificate programme

Total Number of Hours: 120		Theory	Tutorial	Practical
Credits		0	0	4
Hours/ week		0	0	8
SCHEME OF EXAMINATION				
Total Marks: 100				
Theory : NA		Practical : 100		
Final Exam	Internal Assessment (CT+TA)	Final Exam		Internal Assessment (CT+TA/PR)
NA	NA	70		30

Unit 1: [30 Hrs.]

Teaching Internship for Certificate Students;

Unit 2: [60 Hrs.]

Lecture cum demonstration; Organising Yoga Workshops and Yoga Camps

Unit 3:

Worksheet & Presentation [30 Hrs.]

REFERENCES FOR THE SYLLABUS

TEXT BOOKS

1. Nagendra H R and Nagarathna, Promotion of Positive Health, SVYP, 2002
2. MDNIY, New Delhi : Shatkarma, Yogasana, Pranayama

BOOKS FOR REFERENCE

1. Bhat, Krishna K.: The Power of Yoga: SuYoga Publications Mangalore, 2006
2. Dasgupta S. N: History of Indian Philosophy, Motilal Banarsidas, Delhi, 2012
3. Gore MM: Anatomy and Physiology of Yogic Practices
4. Hiriyanna M : Outlines of Indian Philosophy, Motilal Banarsidas, Delhi, 2009
5. Iyendra BKS : Light on Yoga
6. Singh S. P & Yogi Mukesh : Foundation of Yoga, Standard Publication, New Delhi, 2010
7. Swami Dhirendra Brahmachari: Yogasana Vijnana, Surya Namaskara
8. Swami Kuvalyananda: Asanas, Yoga-Mimamsa Publications
9. Swami Kuvlayananda: Pranayama, Yoga-Mimamsa Publications
10. Swami Prabhavananda: Spiritual Heritage of India (English). Sri Ramkrishna Math, Madras, 2004
11. Swami Vivekananda: Jnana Yoga, Bhakti Yoga, Karma Yoga, Raja Yoga, Advaita Ashrama, Calcutta, 2000
12. Yoga Instructors' course Self Learning Materials, Vol-I and Vol-II, SVYP, 2009

18-19, 19-20, 20-21, 21-22, 22-23: Yoga certificate course

Assessment Procedure

As per the guidelines of Burdwan University (internal and term end)

2022-2023: Add on Courses

1.SUSTAINABLE AGRICULTURALPRACTICES

- **Module-1: Green revolution in agriculture**: Concept, Definition, Brief Historical background of Green revolution in agriculture, Understanding the principles and importance of it to combat with food scarcity, Methods used in Green Revolution, Components and impacts of Green Revolution in Indian Agriculture.
- **Module-2: Introduction to problems and challenges of agriculture**: Various problems of traditional agricultural practices in India and the environmental degradation related to it.
- **Module-3: Organic farming for sustainable agriculture**: Strategies and practices for conserving natural resources, organic farming techniques, advantages and disadvantages of Organic farming, why India needs organic farming: with special emphasize on status of organic farming in India,
- **Module-4: Various sustainable methods of agriculture**: Give a brief knowledge on conservation tillage, crop rotation, agroforestry, water conservation, soil biodiversity.
- **Module-5: Sustainable agriculture and land management**: Give a knowledge about the hazardous impacts of deforestation, intensive agriculture and grazing on land resource, different mitigation measures like crop rotation, cover cropping, conservation tillage etc. and sustainable agricultural land management, role of organic farming to maintain soil overall health and biodiversity, environmental preservation,
- **Module-6: Integrated Pest Management**: Concept and types of IPM, third and fourth generation pest controller, pheromone and light trap systems,
- **Module-**7: **Vermicomposting:** Concept, compost pit development, function, advantages of vermicomposting technique and its role to increase crop productivity, to maintain soil health and biodiversity,
- **Module-** 8: **Sustainable farming and natural resources:** Relationship between sustainable farming and its application to conserve different natural resources, multi-tier cropping system,

- **Module-** 9: **Agricultural waste to energy production:** Biogas, biofuel, biodiesel production, biogas slurry based manure,
- **Module**-10: Modern agricultural practices: Backyard azolla cultivation as bio-feed and bio-fertilizer, use of organic growth promoters, bio-fertilizer and bio-pesticides, use of fish amino and vermi wash, aquaponics and aeroponics, vertical farming etc.

IV. Assessment Procedure

- **Viva- voce**
- **Written test**

2. BASICS OF C++

- Module-1: Grasping basic concepts of C++, installingfreeand open-source IDE with compiler for C++ in windows computer, writing your first C++ code "Hello World" and compiling it, basic debugging skills
- Module-2: Introduction to Programming, Constants, Variables, Data types, Operators and expressions, I/O statements, scanf and printf, cin and cout, Manipulators for data formatting,
- Module-3: Control statements (Decision making statements: if statement, if else Statement,Nested if structure, else if ladder statement, Ternary Operator, goto statement, switch case statement.
- Module-4: Unconditional and conditional looping: while loop, do-while loop, for loop, breakand continue statements, Nested loops).
- Module-5: Write and execute a program in C/C++ tocompute the factorial of a positive integerincluding Zero.Write and execute a program in C/C++ tocalculate sum of squares of n natural numbers.

- **Assessment Procedure**

  20 Hours of Hands-on training in Computer Lab and 14 Hours of theory lecture. Final exam will beon computer programming in computer lab.

3.FOOD ADULTERATION AND HEALTH ISSUES

MODULE-1: Common Foods and Adulteration (6 hrs)

Adulteration: Introduction, Definition, Perspective, Common Foods subjected to Adulteration; Reasonsof Food Adulteration; Categories: replacement, addition, removal; Food Adulteration Vs Food Additives; Adulteration through Food Additives: Intentional and incidental.

MODULE-2: Chemistry involved for detection of common adulterants in the following foods (6 hrs)

Milk and milk products; Spices (Turmeric, Chili powder, coriander, black peeper); Sugar, honey, jaggery and sweetening agents; Oils (Mustard seeds, edible oils) and fats; Cold drinks; Smoked food; Colored food; Flavored food; Chinese food, meat and meat products; Food grains and their productsand Miscellaneous household products.

MODULE-3: Laboratory techniques to detect the adulterants in Food (6 hrs)

Laboratory techniques to detect the existence of (a) water, urea, starch, detergent, vanaspati, formalinin milk and milk products; (b) Common salt in powdered spices; (c)colored saw dust in turmeric powder; (d) Brick powder in chili powder; (e) papaya seeds in black pepper; (f) Chalk powder, urea in sugar; (g) Sugar solution in honey; (h) Washing soda in jiggery; (e) Metanil yellow in besan (f) Chalk powder in white flour (g) Coloring of Cheese(s) with Lead; (h) Spraying of blue vitriol solution over green vegetables and fruits for freshening up; (i) Usage of formaldehyde to prevent spoilage ofNoodles, meat, fish, from the sun.

MODULE-4: Present Laws and Procedures on Adulteration: (4 hrs)

Basic Highlights of Food Safety and Standards Act 2006 (FSSA), Rules and Procedures of Local Authorities, Role of voluntary agencies, Quality control laboratories, Consumer education, Consumer problems rights and responsibilities.

MODULE-5: Adulterants in Foods and their health effects: (4 hrs)

Different types of food adulterants such as artificial ripening agents, artificial sweetening agents, artificial coloring agents, preservatives, substituted meat products, substitution of spices, oil substitution etc. and their adverse health issues.

MODULE-6: Recommended Co-curricular Activities (including Hands on Exercises): (4 hrs)

1. Collection of information on adulteration of some common foods from local market,
2. Exhibition of Adulteration detection methods for a minimum of 6 common foods (one methodeach).

Assessment Procedure

1. Attendance: 05 marks
2. Continuous assessment in both theoretical and practical classes:05+05 = 10 marks
3. Written MCQ test: 30
4. Viva-voce: 05

4. ORNAMENTAL FISH BREEDING AND CULTURE

A. Module 1.

INTRODUCTION TO AQUACULTURE (5 HOURS)

- Setting up of fish Aquarium and bio filtration systems
- Quarantine techniques (fish conditioning protocol)
- Brood stock development
- Live feed culture (paramecium culture, moina culture, infusoria)
- Artificial feed preparations, water quality parameters, soil quality parameters.

Module 2.

INDUCED BREEDING TECHNIQUES OF ORNAMENTAL FISHES (10 HOURS)

● Induced breeding techniques of some fishes like

➢ Oviparous fishes

● Egg Scatters (gold fish, Koi Carps),

● Bubble Nest builders (Gourami, Fighter fish)

➢ Cichlids (Angel fish, Oscar)

➢ Live bearers (Guppy, Molly, platy)

Module 3.

REARING/ CULTURING OF FISHES AND MANAGEMENT (5 HOURS)

● Pond preparation for culturing

● Stocking of fishes

● Diseases of ornamental fishes and their treatments

● Harvesting techniques; packing, transportation and Marketing.

Practical (5 HOURS)

● Setting up of fish Aquarium

● Conditioning of fishes before stocking

● Induced breeding of ornamental fishes

Project Work (5 HOURS)

Assessment Procedure

External Evaluation (theory): 20 marks

Internal Evaluation: 20 marks; it is divided into

1. Attendance : 5 marks

% of attendance	Marks
90% and above	5
85 – 89%	4
80 – 84%	3
76 – 79%	2
75%	1

2. Involvement in practical: 10 Marks

3. Project work and Viva-voce: 05 marks

5. DISASTER RISK ASSESSMENT AS A TOOL FOR DISASTER RISK REDUCTION

Course Design		
Module	Title	Details of Syllabus
Module-**1**	Basic Concepts of Disaster	Disaster, Hazard,Vulnerability
Module-**2**	Hazard Assessment	Identify the nature, locationand Intensity
Module-**3**	Assessing Disaster Risk	Preparedness, Mitigationand Prevention
Module-**4**	Exposure Assessment	To identify population andassets at risk and delineate disaster prone areas
Module-**5**	Vulnerability Analysis	To determine capacity of elements at risk to withstand the given hazardscenario
Module-**6**	Loss/ Impact Analysis	To estimate potential lossesof exposed population, property, services, livelihoods and environment and asses theirpotential impact on society

Assessment Procedure

- **Written Test**
- Viva-Voce

6. VARIOUS ASPECTS OF PHILOSOPHY

- **Module-1: Introduction**: General Features of Indian Philosophy, Spirit of Indian Philosophy

- **Module-2: Basic Notions**: Basic Concepts of the Vedic and the Upaniṣadic World-Views , Value beyond Sentient Beings

- **Module-3: Indian view** : Classical Indian Attitude to Environment, Ecology
- **Module-4: Ethics**: Anthropocentric & Non-Anthropocentric Ethics, Hindu Buddhist Dharma and Ambedkar, Medical Ethics
- **Module-5: Philosophy of Mind**: Consciousness, Subject of Consciousness, Karma **Module-6: Logic**: Theoretical basis of Venn Diagram, Development and Importance of the concepts of variables and constants and their importance in Mathematics and in symbolic logic, Informal Deductive system and Paradoxes.

Assessment Procedure

- **Written Test**
- Viva-Voce

7. EXPLORING NATURE'S PHARMACY: ETHNOBOTANY AND THE HEALING POWER OF MEDICINAL PLANTS

Units	Course contents (Theory)
1	Introduction and objective of Ethnobotany;Ethnobotany as an interdisciplinary science; The relevance of ethnobotany in the present context
2	Some common ethnic groups or Tribals of Indiaandtheir life styles; Plants used by the Tribals: a) Food plants b) Medicines and miscellaneous uses
3	Role of ethno botanical practices in modern medicine with example of some common medicinal plants
4	Biopiracy, Intellectual property rights and traditional Knowledge
5	History, Scope and importance of medicinal plants with some common examples; Application of naturalproducts to certain common diseases
6	Conservation of medicinal plants

Assessment Procedure

1. Multiple Choice Questions – 10 marks
2. Viva voce – 10 marks
3. Field study report – 10 marks
4. Herbarium – 10 marks

Full Marks: 40 Time: 2Hours

8. ENTREPRENEURSHIP ESSENTIALS

- **Unit - 1:** : **Entrepreneurship** – Elements, determinants, importance, scope; Entrepreneur – Qualities/ Traits- Entrepreneurship Ecosystem Model-Ecosystem Challenges-Conductive Ecosystem; Stimulation, Support and Sustainability – Public and Private systems.
- **Unit – 2: Intellectual Property Right** – Concept, Significance; Types – Copyright, Trademarks, Patents, Geographical Indications; IPR & Entrepreneur.
- **Unit – 3: Schemes for MSMEs** - Prime Minister Employment Generation Programme (PMEGP), Credit Guarantee Scheme for Micro and Small Enterprises (CGTMSE),Micro and Small Enterprises Cluster Development Programme (MSE-CDP), Entrepreneurship and Skill Development Programme (ESDP) scheme, Procurement and Marketing Support (PMS) scheme; Make in India, Startup India, Ease of Doing Business Index.
- **Unit – 4: Communication Skills for Entrepreneurs**; Types of Communication Skills: Verbal Communication Skills, Nonverbal Communication Skills, Writing Skills, Networking Skills.
- **Unit – 5: Business plan** – Rationale, Stakeholders, Types, Structure and Contents – Steps in preparation of a Business Plan.
- **Unit – 6: Project**: Development of a business plan for a locally oriented business/ social venture.

Assessment Procedure

- **Viva- voce**
- **Written test**

9. ONLINE GST RETURN FILLING

1. Introduction in GST- Structure of Tax, Outline of Existing Tax System, History and evaluation of GST.
2. Category of GST-CGST, SGST, IGST, UTGST.
3. Online Registration of GST- New Registration, Amendment of existing Rules regarding Registration, Cancellation of existing Registration.
4. Preparation of Tax invoice and other documents relating to GST.
5. E-way bill (Online system)-Introduction of e-way bill, preparation of e-way bill (online).
6. Return under GST-GSTR 1, GSRT 3B, GSTR 2A, CMP 08, GSTR 4, GSTR 9, Refund in GST, Offence and penalties,
7. Input tax credit system, Supply-(time/place/value).
8. Case Study of GST.

Assessment Procedure

- **Written Test**
- Viva-Voce

10. BASIC COMPUTER AND PROGRAMMING

¬ UNIT- 1: Basics of computer [TIME: 4 HOURS]: - Computer Fundamentals, Computer Components, Hardware and Software, Windows, Accessing the internet, Microsoft Office, (Preparing and editing files,) Viewing of File, Folders and Directories, Creating and Renaming of files and folders, operating systems, DOS and WINDOWS, Binary number. Relation between binary and decimal numbers, Opening and closing of different Windows ¬

UNIT- 2: Microsoft word and Computer Programming [TIME: 4 HOURS]: - Basic of Microsoft word, Different aspects of preparing files, Preparing and editing of files with Microsoft word, Opening and Renaming of files. Designing of files. ¬

UNIT- 3: Power point presentations [TIME :4 HOURS]:- Basic of Power point, Aspects of Power point presentations. Preparing and editing of small files using Power Point Presentation. Various types of data presentation with power point. ¬

UNIT-4: Basic of Excel and programming [TIME :4 HOURS]:- Basic of excel, Mathematics for Computer Science, Basic Programming Concepts, Excel, Spreadsheet, Manipulation of cells, Manipulation of sheets, Providing Formulas and Functions, Programming with excel. Mathematical formulas and programming with excel. Presenting Data with Charts. ¬

UNIT-5:IAB[TIME :14 HOURS]:- Practical MS Office ϖ Microsoft Word ϖ Microsoft Excel ϖ Microsoft Power Point

Assessment Procedure

Final written and Practical assessment

11. SUSTAINABLE DEVELOPMENT

- **Module-1: Introduction**: Concept, Definition, Brief Historical background of Sustainable Development ,Understanding the principles and importance of sustainable development
- **Module-2: Sustainable development goals (SDGs)**: United Nations' SDGs, including their recommendations and indicators to address global challenges,
- **Module-3: Environmental sustainability**: Strategies and practices for conserving natural resources, mitigating climate change, promoting biodiversity, managing waste, and achieving sustainable land and water management.
- **Module-4: Society and sustainability**: Analyzing social equity, human rights, social justice; gender equality; sustainable cities and communities, urban planning, transportation, green infrastructure, sustainable architecture,
- **Module-5: Green Building**: Relevance for environmental protection, building materials and their environmental impact, green building and energy saving, buildings as part of the city
- **Module-6: Energy management**: Renewable energy, energy efficiency, sustainable agriculture, resource conservation, and the transition to a low carbon economy

Assessment Procedure

- **Viva- voce**
- Written test (MCQ)

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