

SYLLABUS FOR THE POST OF SKILL ASSISTANT PROFESSOR
“AGRICULTURE SCIENCE”

Section-A

50 Marks

Skill Aptitude Test- Annexure-1

Section-B

50 Marks

Domain Knowledge

- Unit 1: Basics of Agriculture Farming;** History of Agricultural Development, Factors affecting agriculture, Indian Agriculture under-five year plan, Role of agriculture in Indian economy, Cropping pattern, Agriculture practice, Innovative Agriculture Practice: Drone or UAV, IOT
- Agriculture waste management:** Introduction, Agriculture waste generation, Waste utilization and classification of waste, BIO CNG: An alternative Fuel
- Urban Farming:** Need of urban farming, Urban farming, Factors involved, technology used and different case studies, Aquaponics, Hydroponics
- Irrigation:** Soil water, water requirement of crops, hydrology cycle, factors affecting evapotranspiration (ET), ET and crop yield, estimation of ET and crop field irrigation requirement, method of irrigation, subsurface, drip and sprinkler, micro-irrigation, quality of irrigation water.
- Organic Farming:** Introduction, Need of organic farming, Principal of organic farming, Difference between organic and conventional farming. Nurture soil biodiversity, soil testing, soil analyses, Composting, green manures, animals' manures, Bio fertilizers
- Organic Standard and Certification:** Organic certification, purpose of certification process, Certification process: operational structures, national's accreditations only, evaluation committee, certification agencies, inspectors.
- Precision and Smart Farming:** Basic concepts about spatial information. GIS, Manual mapping Vs GIS mapping, Variables- Points, Lines and Areas, Network and Surface, Remote Sensing: advantages and limitations, Electro-Magnetic Radiation (EMR), Radiometry, GEODESY, Evolution of Indian Space Programme, Introduction to Weather, Communication and Earth Observation satellites systems, IRS series of satellites. Global earth Observation Systems Landsat, SPOT, Ikonos, Quickbird, Worldview, Terra, Aqua, Radarsat, NOAA, EO-1, Data dissemination sources, Introduction to Bhuvan – geoportal of India, Spatial Analysis,

Indicies and Classification, Microscopic level geo tagged data capturing using IoT and sensors-based applications for agriculture.

Unit II: Diversified and Sustainable Agriculture System;

Sustainable Agriculture and Environment - Introduction and basic concepts of Environment, Factors affecting ecological balance, Deforestation, Overgrazing of range lands, Over exploitation of ground water, Soil, water and air pollution.

Sustainable Development: Goals & Agricultural Sustainability, Introduction to Sustainable Development Goals, Agricultural Sustainability Index

Sustainable Agriculture – Introduction to sustainability Definition, scope and advantage of sustainable agriculture, Modern and conventional agriculture in relation to sustainable agriculture, Advantages of Sustainable Agriculture, Economics of Sustainable Agriculture
Impact of improved crop production Technology-Reduction in biodiversity, Build-up of pests- diseases and weeds, Hazards of indiscriminate use of agrochemicals, Accelerated soil erosion, Irrigation related problems, Depletion of soil Fertility-Soil sickness

Sustainable Utilization of Resources – Land, Water and Forest.

Unit III: Intergraded Pest, Disease and Weed Management in Agriculture;

Fundamentals of Plant Pathology: Introduction to plant diseases and Plant Pathology, Causes / factors affecting disease development, commonly grown crops in local area: Diseases and Pests affecting them, Diseases and symptoms due to abiotic cause, Introduction of new varieties and crops, Improved agronomic practices.

Fundamentals of Entomology: Introduction to Entomology, Insect Morphology and Ecology, Introduction to Environment and its Components, Effects of abiotic factors (On Insect Ecology), Effects of abiotic Factors (On Insect Ecology), Methods of detection and diagnosis of insect pest and diseases, Introduction of new varieties and crops, Improved agronomic practices, Introduction of new pest in new environment, Accidental introduction of pests from foreign countries, Large scale storage of food grains, Resurgence of Pests, Losses Caused by Pests.

Integrated Pest Management: Principles and concepts of Integrated Pest Management, History of Pest Management, Ecological management of crop environment, conventional pesticides vs biopesticides vs nano-pesticides for the insect pests and disease management.

Weed management: Introduction to weeds, their harmful and beneficial effects on ecosystem, classification, multiplication and dissemination of weeds, control of weeds-manual & chemical, use of herbicides, adjuvant, surfactants, herbicides formulation and their use, mode of action of herbicides. Residual effects of herbicides on succeeding crops.

Unit IV: Seed, Soil and Fertilizers Management;

Seed Science: Seed structure and development - External and internal features of monocot and dicot seed; Embryogenesis, Apomixis, Seed vigor, Principles of parental and hybrid seed production, Demand and supply; suitable areas of seed production and storage, agronomy of seed production, quality seed production, generation system of seed multiplication. Physiological processes during seed germination, seed respiration and breakdown of stored reserves in seeds, Seed dormancy.

Seed quality and types of seeds, methodology of seed sowing, time, depth and types of sowing, different classes of seeds - foundation and certified seeds, seed certification, field inspection, GM seeds and their detection, seed treatment, seed storage. Identification of different types of seeds, cereals, pulses, oilseeds, fodder and vegetables, germination of seeds. Principles of seed processing; Packaging and Seed storage.

Seed quality control system and organization, seed village concept, Seed production in India. National and international history of seed testing. Seed testing network in India. National and international seed testing rules. Seed testing organizations. Seed sampling, heterogeneity test, Tetrazolium test, Testing for coated / pelleted seeds, Seed health.

Seed pathology, Detection and control of seed borne pathogens. Seed entomology, Seed ageing and deterioration, Aspects of loss of vigour and viability during storage; application of physiological and biochemical techniques for evaluation of seed ageing, seed amelioration techniques.

Soil Science: Soil structure - genesis, types, characterization and management soil structure; Chemical (elemental) composition of soils, soil texture, soil aggregation, soil tilth, soil crusting, soil conditioners, puddling, physical biological, chemical properties of soil, and thermal properties of soil. Soil water, Soil colloids, Soil air, Soil temperature, Soil reaction-pH, Soil acidity and alkalinity, Soil organic matter, Soil regeneration, Soil organisms. Soil profile, Soil sampling methods, Soil sampling tools, Soil forming rocks and minerals, Determination of soil moisture, pH and organic matter determination. Soil fertility and soil productivity, Soil and fertilizer management in lowland and upland conditions for high

fertilizer use efficiency. Soil test methods and analysis components and methods. Chemistry of acid soils. Chemistry of salt-affected soils and amendments, soil pH, ESP, SAR and important relations, soil management and amendments. Soil biota, soil microbial ecology.

Fertilizers: Difference between fertilizer and manure, Integrated Nutrient Management, Primary Fertilizers -Nitrogenous, phosphatic, potassic, Secondary and micronutrient fertilizers, Complex fertilizers, Nano fertilizer, Soil amendments. Identification of different fertilizers and amendments, fertilizer management.

Unit V: Farmer Psychology in Agriculture;

Elements of Indigenous Agriculture: History of agriculture in Indian subcontinent, Agro-climatic zones, Agro-biodiversity, Agriculture methods of Indian farmer, Indigenous Farming Techniques, Conventional farming, Rainfed Agriculture, Dryland Agriculture, Contour farming, Shifting Agriculture.

Industrialized and Subsistence Agriculture: Industrial Agriculture, Intensive Agriculture, Extensive Agriculture, Integrated Farming, Aquaponics, Agriculture, Semi-commercial farming, commercial farming, ley-farming, Irrigation farming, Monoculture of cash crops, export-oriented agriculture, Protected cultivation and secondary agriculture, Silviculture, Terrace Cultivation, Agricultural upstream and downstream value, farming as a service (Faas), Seed Technology, Irrigation Management.

Non-Farm and Off Farm Aspects of Agriculture: Fundamentals of Rural society, Social Stratification and Educational Psychology in Agriculture, Durkheimian Theory, Social Psychology, Models on farmers, Rural youth and future agriculture, Rural response in production agriculture and Agricultural Policy, Typology and small farms distribution in Indian Agriculture, Land concentration

Society - Characteristics, Rural and Urban Society, Social Group (s) – Meaning, Rural Sociology - differences and convergence and Farmer Psychology and its importance in Agricultural Extension Social Stratification, Class System and Caste System, Cultural Concepts Ritual and their Role in Extension Education and farmer psychology. Social Values, Social Control – Requirements and means of social control and Attitudes - Types and stakes in Farming and Agricultural Extension. Social Institution, Religious, Economic (Co - Operative Society) & Political (Panchayat). Characteristics, roles and function in Indian farming. Social change dimensions, factors & development:

Farmers behavioural Science: Meaning, Scope and its Importance in Agriculture. Behaviour: Definitions, Types, Factors and Behavioural Interventions in Cognitive,

Psychomotor domain, Intelligence in Progressive farming and its importance in Agricultural Extension, Behavioural economics in Agriculture, Capacity building of farming families, 7D and 7R model, Agriculture land economics in India, Psychological adoption pattern of innovative technology in Agriculture, Psychological distress management

Agricultural extension: its importance, and role, methods of evaluation of extension programmes, socio-economic survey, and status of big, small, and marginal farmers and landless agricultural labourers. Training programmes for extension workers. Role of Krishi Vigyan Kendra's (KVK) in the dissemination of Agricultural technologies. Non-Government Organization (NGO) and self-help group approach for rural development

Unit VI: Agriculture Economy, Finance Project Management, Marketing and Export Policy of Agriculture in India;

Agriculture Economy: Features of the Indian Rural Economy, Place of Agriculture, Causes for Low Productivity, Rural poverty; Agriculture: Special Features and Place of Agriculture in Indian Economy, Causes of Backwardness, Measures for the Development of Agriculture, Progress of Agriculture during the plan period.

Agricultural Labour and Mechanisation of Agriculture: Agricultural Labour, Wages and Income, measures to improve the conditions of labour, Green Revolutions, Effects – Mechanisation, Land Tenure system in India, Tenancy Legislation

Fundamental of Agri-Management and Safety: Introduction to Agri/Farm Management, Management of farm for generating a sustainable income, Farm Planning, Income and Expenditure, Ways to increase revenue, Management of money throughout the year, Risk in agriculture, Safety Practices, Important occupational health hazards in agriculture, Safe handling of Agrochemicals

Finance Project Management: Role and Importance of Agricultural Finance. Financial Institutions and credit flow to rural/priority sector, Agricultural lending - Direct and Indirect Financing - Financing through Co-operatives, NABARD and Commercial Banks and RRBs. District Credit Plan and lending to agriculture/priority sector. Micro-Financing and Role of MFI's - NGO's, and SHG's. Time value of money - Use of discounted measures - B-C ratio, NPV and IRR. Agreements, supervision, monitoring and evaluation phases in appraising agricultural investment projects. Network Techniques - PERT and CPM, Risks in financing agriculture. Risk management strategies and coping mechanism.

Crop Insurance programmes - review of different crop insurance schemes - yield loss and weather-based insurance and their applications.

Agriculture Marketing and Export: Concepts in Agricultural Marketing, Market intermediaries and their role, Marketing Efficiency, Marketing Co-operatives, Market infrastructure- problems and measures, Role of Information Technology and telecommunication in marketing of agricultural commodities, Agricultural Products and Trade - Concept of International Trade and its need, GATT and WTO; Agreement on Agriculture (AoA) and its implications on Indian agriculture; IPR, E- Markets, Functioning of e-Commerce in Agribusiness, Digital Marketing Techniques. Agriculture and processing Food Products Export Development Authority (APEDA): National bodies concerned with trade and export of Agriculture products in the country.

Unit VII: Crop Improvement (Genetics, Plant Breeding, Crop Physiology, Biotechnology and Biochemistry);

Genetics: Introduction to genetics; Cell division: mitosis and meiosis; Mendelian principles of heredity; Study of chromosome structure; Multiple alleles, pleiotropism and pseudoalleles and blood group genetics; Linkage and its estimation, crossing over mechanisms, chromosome mapping; Sex determination and sex linkage, sex limited and sex influenced traits; Qualitative and quantitative traits, polygenes and continuous variations, multiple factor hypothesis; Cytoplasmic inheritance; Mutation- classification, Methods of inducing mutation and CIB technique, mutagenic agents and induction of mutation; Structural and numerical changes in chromosome; Nature, structure and replication of genetic material; Protein synthesis: transcription and translational mechanism of genetic material; Gene concept- gene structure and functions; Gene regulation- Lac and Trp operons.

Plant Breeding: Historical development, concept, nature and role of plant breeding, major achievements; Modes of reproduction and apomixes; Self- incompatibility and male sterility- genetic consequences and cultivar options. Domestication, acclimatization, introduction; Centre of origin/diversity, Genetic basis and breeding methods in self- pollinated crops- mass selection and pure line selection, hybridization techniques and handling of segregating population (pedigree, bulk, SSD and back cross methods); Multiline concept; Genetic basis and methods of breeding cross-pollinated crops; Heterosis and inbreeding depression; Development of inbred lines and hybrids, composite and synthetic varieties; Breeding methods in asexually propagated crops-clonal selection and hybridization; Wide

hybridization and pre-breeding; Polyploidy in relation to plant breeding; Mutation breeding-methods and uses; Breeding for important biotic and abiotic stresses.

Crop Physiology: Introduction to crop physiology and its importance in Agriculture; Diffusion and osmosis; Absorption of water, transpiration and Stomatal Physiology; Mineral nutrition of Plants: Functions and deficiency symptoms of nutrients, nutrient uptake mechanisms; Photosynthesis: Light and Dark reactions, C3, C4 and CAM plants; Respiration: Glycolysis, TCA cycle and electron transport chain; Plant growth regulators: Physiological roles and agricultural uses, Physiological aspects of growth and development of major crops: Growth analysis, Role of Physiological growth parameters in crop productivity. Absorption of water, ascent of sap and anti-transpirants. Photoperiodism and Vernalization. Translocation of solutes.

Plant Biochemistry: Importance of Biochemistry. Properties of Water, pH and Buffer. Carbohydrate: Importance and classification. Structures of Monosaccharides, Reducing and oxidizing properties of Monosaccharides, Mutarotation; Structure of Disaccharides and Polysaccharides. Lipid: Importance and classification; Structures and properties of fatty acids; storage lipids and membrane lipids. Proteins: Importance of proteins and classification; Structures, titration and zwitterions nature of amino acids; Structural organization of proteins. Introduction to secondary metabolites, Enzymes: General properties; Classification; Introduction to allosteric enzymes. Applications of enzymes. Vitamins and mineral nutrition for human health. Metabolism of carbohydrates: Glycolysis, TCA cycle, Pentose phosphate pathway, Glyoxylate cycle, Electron transport chain. Substrate level and photo phosphorylation reaction, Metabolism of lipids: Beta oxidation, Transamination reaction

Plant Biotechnology: History of Biotechnology, Concepts and applications of plant biotechnology: Scope, organ culture, embryo culture, cell suspension culture, callus culture, another culture, pollen culture and ovule culture and their applications; Micro-propagation methods; organogenesis and embryogenesis, Synthetic seeds and their significance; Embryo rescue and its significance; somatic hybridization and cybrids; Somaclonal variation and its use in crop improvement; cryo-preservation; Concept of central dogma; Introduction to recombinant DNA methods: physical (Gene gun method), chemical (PEG mediated) and Agrobacterium mediated gene transfer methods; Transgenics and its importance in crop improvement; PCR techniques and its applications; RFLP, RAPD, SSR; Marker Assisted Breeding in crop improvement; Biotechnology regulations. QTL mapping.

SYLLABUS FOR THE POST OF SKILL ASSISTANT PROFESSOR “HOTEL MANAGEMENT”

Section-A

50 Marks

Skill Aptitude Test- Annexure-1

Section-B

50 Marks

Domain Knowledge

Unit-I Food Production; Professional Kitchen - Introduction, Definition, and its importance; Personal & Kitchen Hygiene, Uniform, Protective clothing, Kitchen Layouts (Basic, Bulk and Show kitchens), Hierarchy of Kitchen Department, Duties & Responsibilities of various chefs, their attributes; coordination of kitchen with other departments. Kitchen equipment's, Fuels & Safety, Their Usage, Care & Maintenance, Workstations, Fire, Types and handling fires, First Aid- Burns, Scalds, Cuts, Kitchen Hygiene, beginning with day's work, closing of shifts.

Ingredients used in cooking: Herbs & Spices, Cereals and Pulses, Fruits and Vegetables, and Salt, Sweeteners, Fat, Milk and Milk Products, Eggs, Poultry, Meat, Fishes, Chicken: - Introduction, Types, Purchasing, Storing Considerations, Cuts and their key uses in kitchen

Methods of Cooking: - Introduction, Definition, and its importance; Types- Baking, Broiling, Grilling, Frying, Steaming, Stewing, Poaching, Poeling, Roasting, Frying, Sautéing, Braising Cooking with Microwave, Ovens, Gas, Induction Plates, Air Fryers and other such media. HACCP Standards and Professional Kitchens.

Stocks, Sauces, Soups and Salads: Stocks: Introduction, Classification, Usage, Preparation; Sauces: Introduction, Classification, Usage, Thickening Agents, Preparation of Mother Sauces, understanding their derivatives, propriety sauces, making of good sauce, emerging trends, Soups: Introduction, Classification, Preparation, Salient Features, Care and precautions, trends in soup presentation. Salads: Introduction, compositions, types, dressings, emerging trends.

Unit II Food & Beverage Service- Introduction, Concept, and Classification of Catering Establishments, their importance; Personal Hygiene, Uniform & Grooming Standards, F&B Service Outlets & Familiarisation with their Layouts(Tea Lounge, Coffee Shop, Restaurant, Banquets, Staff Cafeteria), Hierarchy of F&B Service Department, F&B

Service Brigade, Organisational Structure, Modern Staffing in various hotels, Duties & Responsibilities of various employees in F&B Service, their attributes; coordination of F&B Service with other departments.

Food Services, Equipments & Items: Table Crockery, Cutlery, Glassware (Bar Glassware not included) Condiments, Sweeteners, Menu – Concept, Types, Salient Features, Menu Designs, Presenting of Menu, Layout of Table, Napkin Folding (At least Ten Types), Receiving and Greeting the Guests, Types of Food Services, their applications and service methods, Preparation for Services, Mise-en-place and Mise-en-scene, arrangement and setting up of station, Par stocks maintained at each side station, Functions performed while holding a station, Method and procedure of taking a guest order, emerging trends in Food Services and salient features.

Coffee Shop & Breakfast Service: Introduction, Coffee Shop, Layout, Structure, Breakfast: Concept, Types & classification, Breakfast services in Hotels, Preparation for Breakfast Services, Mise-en-place and Mise-en-scene, arrangement and setting up of tables/trays, Functions performed while on Breakfast service, Method and procedure of taking a guest order, emerging trends in Breakfast Services and salient features.

Food and Beverage Services in Restaurants: - Introduction, Concept of Restaurant, Types of Restaurants, their salient features; Set up of Restaurants and their Layouts, Restaurant Teams Organisational Structure, Modern Staffing in various hotels, Method and procedure of receiving guests, taking guest orders, Service equipment used and its maintenance, Coordination with housekeeping for soil linen exchange, Physical inventory monthly of crockery, cutlery, linen etc., Equipment, furniture and fixtures used in the restaurant and their use and maintenance, Theme and Speciality Restaurants, Celebrity Restaurants.

Unit III Cleaning of Guest Rooms & Public Areas: Cleaning Process, Special Cleaning, Weekly Cleaning, Evening Service/ Turn Down Service; Cleaning and upkeep of Guest Rooms (Vacant/ Occupied/ VIP/ Departure/ under maintenance/ Bath Rooms), Cleaning & Upkeep of Public areas (Entrance/ Lobbies/ Front Desk/ Elevators/ Staircases/ Guest Corridors/ Public Restrooms/ Banquet Halls/ Dining Rooms/ Leisure Areas), **Pest Control:** Types of pests, Control procedures. **Safeguarding Assets:** Concerns for safety and security in Housekeeping operations, Concept of Safeguarding assets.

Special Provisions for Guests, Safety, Security and First Aid: Guest room features for differently abled – added features and modifications, Public Areas: Wash – rooms, restaurants, main entrance etc. added features and modifications. Situation Handling/ Service Design, for typical Market Segment (Safety, security & Comfort); single lady guests, Children. **Safety:** Accidents, Fires (Cause, Procedure, Accident report form), **Security:** Security of Guest/ Staff/ Public areas/ Rooms/ Back office areas, **First Aid:** Concept and

Emergency Procedures (Heart Attack, Fits, Burns, Fainting, Fractures, Scalds, Artificial respiration). **Housekeeping Supervision:** Importance of inspection, Check- list for inspection, typical areas usually neglected where special attention is required Role of Supervisor, Specific Function of Supervisor.

Laundry Management – Concept and Importance of Laundry; On Premise Laundry & Off Premise Laundry; Managing Guest Laundry: Valet Service, Collecting Guest Laundry and return; Laundry Layout; Laundry Equipments; Laundry Agents; Laundry Cycle; Laundry Process; Stain Removal; Dry Cleaning and Care Labels; Sewing, Linen and Uniform Rooms; Storage of linen, Linen Control.

Interior Decoration – Definition, Importance, Classification; Principles of Design : Harmony, Rhythm, Balance, Proportion, Emphasis; Elements of Design : Line, Form, Colors, Texture; **Flower Arrangement** – Concept, Importance, Types, Shapes and Principles, Equipments and Materials used for Flower Arrangement, Indoor Plants Care and Role of House Keeping; **Colors** – Color Wheel, Importance and Characteristics, Classification of Color and Color Schemes; **Lighting** – Classification, Types, Importance and Application.

Planning and Evaluating Front Office Operations – Setting Room Rates (Hubbart Formula, Market Condition Approach & Thumb Rule), Types of Discounted Rates – Corporate, Rack etc.; Forecasting Techniques, Forecasting Room availability, Useful Forecasting Data (% of walking, overstay and understay), Forecast Formula, Types of Forecast, Sample Forecast Forms, Factors for evaluating Front Office Operations.

Unit IV Meetings, Expositions, Events, Convention Management (MEEC); Concept, Reasons for MEEC, Key Players of Sector, Objectives and Components of MEEC, Importance and Benefits of MEEC, Hotel Industry and MEEC, Economic, social & environmental impacts of conferences and conventions.

Planning & Managing Meetings – Definition of meeting, Meeting Types, Attributes of Meeting Planner, Various Meeting Setups, Planning & Organizing Business Meetings, Do's & Don'ts of Meeting, Green Meetings & Social Responsibility.

Event & Convention Management - Definition of Event, Types of Event: Meetings, Incentives, Conventions & Exhibitions, Events Planning and Organization, Key steps to successful event, Attributes of successful event manager.

Managing Conferences - Definition of Conference and the component of conference market, Role of Conference Organizer, Role of travel agency & hotels in the Management

of Conference, Management of Conference at Site : Applications of Technology Enabled Communication in Conference Management, Budget, Planning Conference Brochures, Drafting Guest Invitations, Conference Kits, Registration and Accommodation, Handling Press & Media, Safety & Security Aspects, email writing, use of social media, dos and don'ts with technology enabled communication.

Communication Skill; Understanding Communication, Nature & Scope of Communication, Functions of Communication, Communication Networks, Types of Communication, Their Forms, Merits - de merits, Miscommunication, Communicating for Hospitality Business, Grooming up for hospitality business, Professionalism, Business conversations.

Soft Skills & Hospitality Business, Etiquettes - Travel, Business, Dining, Telephone etiquettes, Extempore, Group Discussions, Introducing oneself, Resumes & Resume Writing, Interviews, Types & Forms, Interview fundamentals, the mock interview and role play of telephonic interviews and online interviews, managing: stress, anger, time, emotion. Handling success & failures.

Writing for hospitality business: Letters - basic principles, components, types, strategies; Memos, Reports- purpose, steps, parts, format, key elements; Writing for Meetings - Planning, Invitation, Minutes Writing; Application - Drafting various applications

Technology Enabled Communication: Introduction, technology based communication tools, applications of technology based communication in hospitality & tourism, impacts, email writing, use of social media, dos and don'ts with technology enabled communication, respecting communication, pitfalls, ethics, integrity, values and trust in communication.

Unit V The Indian Cuisine; Indian Cooking: - Introduction, Philosophy of Indian Food, The great Indian Cuisine – Key features, **Condiments, Herbs and Spices Used in India Cuisine:** Introduction, Condiments, Herbs and Spices used in Indian Cuisine (Allspice, Ajwain, Aniseed, Asafoetida, Bay leaf, Cardamom, Cinnamon, Cloves, Coriander seeds, Cumin, Chilli, Fenugreek, Mace, Nutmeg, Mustard, Pepper, Poppy Seeds, Saffron, Tamarind, Turmeric, Celery, Curry Leaf, Marjoram, Pomegranate Seeds, Stone Flowers, Basil, Betel Root, Black Salt, Red Chilli, Rock Salt) Various ways of using spices, their storage and usage tips. Masalas, Pastes and Gravies in Indian cooking: Masalas and Pastes: Introduction, Types, Blending of Spices, Concept of Dry and Wet Masalas, Pastes used in Indian Cooking, Purchasing, Storing Considerations. Basic Indian Gravies: Introduction, Gravies and Curries, Regional Gravies, Gravy Preparations. Commodities and their usage in Indian Kitchens: Introduction, Souring Agents, Colouring Agents, Thickening Agents, Tendering Agents, Flavouring and Aromatic Agents, Spicing Agents in Indian Kitchens

Regional Cuisines of India - I: Cuisines of Kashmir, Himachal, Uttarakhand, Punjab & Haryana: Introduction, Geographical Perspectives, Brief Historical Background, Characteristics & Salient Features of Cuisine , Key Ingredients, Popular Foods, Seasonal Foods, Special Equipment's, Staple Diets, Specialities during Festivals and Other Occasions, Community Foods.

Regional Cuisines of India - II: Cuisines of Rajasthan, Gujarat, Awadh and Bengal: Introduction, Geographical Perspectives, Brief Historical Background, Characteristics & Salient Features of Cuisine, Key Ingredients, Popular Foods, Seasonal Foods, Special Equipment's, Staple Diets, Specialities during Festivals and Other Occasions, Community Foods.

Skill Aptitude Test

Section-A

50 Marks

The syllabus for part A: teaching / training aptitude in skilling related to Technical and Vocational Education Training (TVET).

Introduction:

Frameworks of skill based learning/teaching; Role of a trainer in skilling environment, pedagogy/andragogy curriculum development and effective delivery; workshops, entrepreneurship and placement, soft skills classroom and seminar management. The aptitude of the candidate to steer industry engagement, using various educational tools, case study methods, skill assessment method, developing curricula for various levels, exposure of online tools, teaching & training and research exposure.

Model of Learning: - The six views of learning to promote skilling (The Behaviourist View, The Cognitive View, The Developmental; View, The Humanist View, The Cybernetic View, The Constructivist View).

Knowledge, Skill and Attitude: - A Classification Schema for Skilled Performance (Dimension 1: The Domains of Performance, Dimension 2: The Reproductive/Productive Scale, Distinction between Factual knowledge and conceptual knowledge, The Structuring of Knowledge in the Mind)

Quantitative statistics: - Data gathering, Hypothesis testing, Result Presentation and application tools of Basic Statistical Analysis and variance (Measures of Central Tendency, Measures of Variability, Correlation)

Instruction Design: - Broad Levels of decision Making with instruction designing on skilling (Course level, Lesson level, Instructional event level, Learning step level), The Control of Instructing, Prescriptive and Student Controlled systems, IT Enabled Intelligent Systems like LMS etc. Organising Course Materials: - Lecture notes, View graphs, Free run videos, Web based lecture notes, Interactive CBT, MOOCs.

Knowledge and Skill: - Knowledge management, Comparison of Expository & Experiential strategies, teaching methodologies for the teaching of knowledge & skills, selecting strategies for delivering and implementation of chosen strategy. Methods specific to the objectives of sub-category; the content and the students, Identifying critical sub-skills, research temperament.

Evaluation Design: - Methods of Evaluation, Computer aided evaluation, Courseware organisation in a vis evaluation and course/quality audit. Measuring Quality and Productivity in Educational Organisation, Accreditation, Costing of Educational Services, perspective Quality Circle and participatory Quality Improvement, Total Quality Management – basic principles.