TNPSC Group 6 Syllabus 2022

The applicant must also follow the examination syllabus according to the rules and regulations posted by the Tamilnadu public service commission and you must prepare for the entrance examination by taking into account the syllabus according to the different papers and the different subjects which are included in this entrance examination. There are a lot of different types of subjects included in the entrance examination so you must prepare for the entrance examination accordingly.

Paper-I – Part-A

10th Standard Topics in Tamil Books

Forest Apprentice (Group-VI Services) Paper-I – Part-B

UNIT-I: GENERAL SCIENCE

Scientific Knowledge and Scientific Temper – Power of Reasoning – Rote Learning vs Conceptual Learning – Science as a tool to understand the past, present and future.

Nature of Universe – General Scientific Laws – Mechanics – Properties of Matter, Force,

Motion and Energy – Everyday application of the Basic Principles of Mechanics,

Electricity and Magnetism, Light, Sound, Heat, Nuclear Physics, Laser, Electronics and Communications.

Elements and Compounds, Acids, Bases, Salts, Petroleum Products, Fertilisers, Pesticides.

Main concepts of Life Science, Classification of Living Organisms, Evolution, Genetics, Physiology, Nutrition, Health and Hygiene, and Human Diseases.

Environment and Ecology.

UNIT-II: CURRENT EVENTS

History – Latest diary of events – National symbols – Profile of States – Eminent personalities and places in the news – Sports – Books and authors.

Polity – Political parties and political system in India – Public awareness and General administration – Welfare-oriented Government schemes and their utility, Problems in Public Delivery Systems

Geography – Geographical landmarks.

Economics – Current socio-economic issues.

Science – The latest inventions in Science and Technology.

Prominent Personalities in various spheres – Arts, Science, Literature and Philosophy.

UNIT-III: GEOGRAPHY OF INDIA

Location – Physical features – Monsoon, Rainfall, Weather and Climate – Water Resources – Rivers in India – Soil, Minerals and Natural Resources – Forest and Wildlife – Agricultural pattern.

Transport – Communication.

Social Geography – Population density and distribution – Racial, Linguistic Groups and Major Tribes.

Natural calamity – Disaster Management – Environmental pollution: Reasons and preventive measures – Climate change – Green energy.

UNIT–IV: HISTORY AND CULTURE OF INDIA

Indus Valley Civilization – Guptas, Delhi Sultans, Mughals and Marathas – Age of Vijayanagaram and Bahmani Kingdoms – South Indian History.

Change and Continuity in the Socio-Cultural History of India.

Characteristics of Indian Culture, Unity in Diversity – Race, Language, Custom.

India as a Secular State, Social Harmony.

UNIT-V: INDIAN POLITY

Constitution of India – Preamble to the Constitution – Salient features of the Constitution – Union, State and Union Territory.

Citizenship, Fundamental Rights, Fundamental Duties, Directive Principles of State Policy.

Union Executive, Union Legislature – State Executive, State Legislature – Local Governments, Panchayat Raj.

Spirit of Federalism: Centre – State Relationships.

Election – Judiciary in India – Rule of Law.

Corruption in Public Life – Anti-corruption measures – Lokpal and Lok Ayukta – Right to

Information – Empowerment of Women – Consumer Protection Forums, Human Rights Charter.

UNIT-VI: INDIAN ECONOMY

Nature of Indian Economy – Five-year plan models – an assessment – Planning Commission and Niti Ayog.

Sources of revenue – Reserve Bank of India – Fiscal Policy and Monetary Policy – Finance Commission – Resource sharing between Union and State Governments – Goods and Services Tax.

Structure of Indian Economy and Employment Generation, Land Reforms and Agriculture – Application of Science and Technology in Agriculture – Industrial growth – Rural Welfare Oriented Programmes – Social Problems – Population, Education, Health, Employment, Poverty.

UNIT-VII: INDIAN NATIONAL MOVEMENT

National Renaissance – Early uprising against British rule – Indian National Congress – Emergence of leaders – B.R.Ambedkar, Bhagat Singh, Bharathiar, V.O.Chidambaranar Jawaharlal Nehru, Kamarajar, Mahatma Gandhi, Maulana Abul Kalam Azad, Thanthai Periyar, Rajaji, Subash Chandra Bose, Rabindranath Tagore and others.

Different modes of Agitation: Growth of Satyagraha and Militant Movements.

Communalism and Partition.

UNIT-VIII: History, Culture, Heritage and Socio-Political Movements in Tamil Nadu

History of Tamil Society, related Archaeological discoveries, Tamil Literature from Sangam Age till contemporary times.

Thirukkural

Role of Tamil Nadu in freedom struggle – Early agitations against British Rule – Role of women in the freedom struggle.

Evolution of 19th and 20th Century Socio-Political Movements in Tamil Nadu – Justice Party, Growth of Rationalism – Self Respect Movement, Dravidian Movement and

Principles underlying both these Movements, Contributions of Thanthai Periyar and Perarignar Anna.

UNIT–IX: Development Administration in Tamil Nadu:

Human Development Indicators in Tamil Nadu and a comparative assessment across the Country – Impact of Social Reform Movements in the Socio-Economic Development of Tamil Nadu.

Political parties and Welfare schemes for various sections of people – Rationale behind Reservation Policy and access to Social Resources – Economic trends in Tamil Nadu – Role and impact of social welfare schemes in the Socio-Economic Development of Tamil Nadu. Social Justice and Social Harmony as the Cornerstones of Socio-Economic Development. Education and Health Systems in Tamil Nadu. Geography of Tamil Nadu and its impact on Economic growth. Achievements of Tamil Nadu in various fields. e-Governance in Tamil Nadu.

UNIT-X: APTITUDE AND MENTAL ABILITY

Simplification – Percentage – Highest Common Factor (HCF) – Lowest Common Multiple (LCM).

Ratio and Proportion.

Simple interest – Compound interest – Area – Volume – Time and Work.

Logical Reasoning – Puzzles-Dice – Visual Reasoning – Alpha numeric Reasoning – Number Series.

Optional Papers – II and III (DEGREE STANDARD) (OBJECTIVE TYPE)

AGRICULTURE (DEGREE STANDARD) SUBJECT CODE 284

UNIT- I IMPORTANCE OF AGRICULTURE

in Indian Economy and its sectoral relationship – Agricultural Development through fiveyear plans in India and Tamil Nadu – Growth pattern of crops in India and Tamil Nadu in terms of area, production and productivity – Government Agricultural Policies – Agricultural development through NITI AYOG – import and export – the role of NSC, FCI and PDS.

UNIT – II FUNDAMENTALS OF CROP PRODUCTION

Factors of Production – Agricultural seasons of India and Tamil Nadu – Cropping patterns in India and Tamil Nadu – package of practices of different crops – Agro-Climatic zones of India and Tamil Nadu and their features – Weather and Climate – Weather forecasting – Climate change and its impact – Minimal tillage practices – Stress mitigating technologies including microorganisms – Nanoparticles and their applications.

UNIT – III NATURAL RESOURCE MANAGEMENT

Soil – Soil structure – Factors influencing soil structure – Physical and Chemical properties – Effect of nutrient availability and plant growth – Problem soils and their management – Soil survey – its objectives and scope – Soil fertility and productivity – Dry farming – Rainfed agriculture – Conservation of soil and water – Watershed and wasteland development. Land use pattern and planning – Size and distribution of holdings – types and systems of farming – Water resources development and management – Command area development – Groundwater Development and
Conjunctive use – Water use efficiency – Quality of irrigation water – Its effect on soil and crops – Management of poor quality water for crop growth.

UNIT – IV CROP MANAGEMENT & ALLIED AGRICULTURAL ACTIVITIES

Cropping systems and integrated farming – Recycling of agricultural waste – Organic manures, green manures, bio-fertilizers – Balanced usage – integrated nutrient management – Physiological disorders in crop plants and their management- Irrigation management of different crops Mushroom cultivation, beekeeping, silk work rearing etc., Energy in Agricultural production – Sources – Solar, wind, animal, biomass and biogas – Mechanization in agriculture – Tractors & tillers – Agricultural implements and Machinery and their usage – livestock and poultry rearing.

UNIT – V CROP IMPROVEMENT

Principles of breeding – Breeding methods in the self, cross and vegetatively propagated crops – Modern tools in crop improvement – Heterosis breeding and Hybrid seed production technologies – Latest varieties of major crops in Tamil Nadu – Breeding for Climate resilience varieties – Variety release procedures -Application of biotechnology in Agriculture – Tissue culture & its significance – Transgenic Plants. Plant Genetic Resources: Collection conservation and exchange-Crop varietal protection-PPV& FR authority and its role.

UNIT- VI SEED SCIENCE AND TECHNOLOGY Seeds

Importance of quality seeds in Agriculture – Nucleus, Breeder, foundation, certified and labelled seeds – Seed certification techniques and processing in Tamil Nadu – Seed testing – Seed testing laboratories-ISTA standards for seed testing- seed village concept Seed Act – Seed coating and priming technologies – Seed enhancement technologies.

UNIT – VII CROP PROTECTION PRINCIPLES AND PRACTICES

Importance of pest, disease, nematodes and weed management in agriculture – categories of pests, diseases, nematodes and weeds – pest and disease surveillance and forecasting weather on pest and disease incidence – Symptoms of damages and control measures of pest, disease and nematodes of major crops in Tamil Nadu – Integrated pest, disease and nematode management in crop production – Pesticides and their use in IPM – mode of action – Pattern – plant protection equipment and their use – Plant quarantine. Storage

pests, disease and nematodes and their management. Importance of biological control in pest, disease and nematode management. Weeds – Major weeds and their control.

UNIT – VIII FARM BUSINESS AND FINANCE MANAGEMENT

Farm business management – Principles of farm business management – Types and systems of farms-Classical Production Functions – Cost concepts – Management of resources – Farm Planning and budgeting – Investment analysis – Risk and uncertainties in AgricultureAgricultural credit system in India – Multi credit delivery system – Role of nationalized banks, NABARD and Regional Rural Banks – Lead Bank Scheme – Service area approach – Scale of finance-Credit Worthiness-3 Rs,5Cs and 7Ps of credit- Crop Insurance – Kisan Credit Cards (KCC) – Agricultural Insurance Company.

UNIT – IX AGRICULTURAL MARKETING AND MARKET INTELLIGENCE

Marketing – Agricultural marketing – Market structure – Marketing Efficiency – Price SpreadMarket Integration-Market Risk-Speculation and hedging – Market Institutions-Warehouses and rural godowns – Agmark-Cooperatives – Commodity Boards – Agribusiness management – Principles of Management-Entrepreneurship Development – Forms of Business organizations – Agricultural Price Policy – CACP-MSP – FRP-Procurement Price-Policies for agricultural development – Economic liberalization – WTO and its impact on agricultural export – Importance of Agriculture in the Indian economy – Land size and distribution of holdings and land use pattern in Tamil Nadu – Agriculture under Five-year Plans (FYPs) – Food Security – Public Distribution Systems (PDS) – Buffer Stock.

UNIT – X AGRICULTURAL EXTENSION: PRINCIPLES AND METHODS

Extension methods for transfer of technology – AV aids-Communication models – Use of ICT in the transfer of technology-Diffusion and adoption- Pre and post-independence rural development initiatives: key features, strengths and weakness of individual programmes – Programme planning and evaluation methods- Rural sociology – key features of Indian rural system-value system-social change- rural migration. Role of women in Agriculture

ANIMAL HUSBANDRY AND VETERINARY SCIENCE (DEGREE STANDARD) SUBJECT CODE 296

UNIT – I GENERAL

Role of livestock and their products in the Indian economy and human health, current livestock programmes and policies of State and Nation – Economics of dairy, sheep, goat, poultry, pig and rabbit farming; constraints to the livestock development programs, common offences against animals – SPCA, Animal Welfare Board of India, NGOs.

UNIT – II LIVESTOCK MANAGEMENT

Common terms used in Animal Husbandry – Identification of age of animals – Livestock and poultry breeds and breed characters; housing systems, and requirements of space, ventilation, water, sanitation and waste disposal. Management of milk, meat, egg and wool-producing livestock, breeding bulls and draft animals and wild animals in captivity, farm records and their maintenance, systems and strategies for livestock improvement for enhancing productivity.

UNIT – III LIVESTOCK NUTRITION

Nutritional terms and definitions – Role of nutrition in health and production; classification and composition of feed and fodders including forest grasses; antinutritional factors and toxins in feeds and fodders; feeding standards and nutrient requirements of different categories of livestock/poultry and computation of rations. Nutritional deficiency and its influence on livestock performance; feed supplements and additives; conservation and preservation of feed and fodders; economic utilization of agro byproducts for feeding livestock – Utilisation of unconventional feeds – Wildlife nutrition. Quality control of feed, feed block/baling, By-Pass Proteins and by-pass Fat, Feeding livestock during scarcity, Metabolic disorders in Livestock and Poultry, Processing of feeds and forage to improve nutritive value.

UNIT – IV LIVESTOCK BREEDING AND GENETICS

Important breeds of cattle, buffalo, sheep, goat, pig and poultry with special reference to economic characters – Important species of wild animals and their breeding in captivity. Selection of Livestock for production, reproduction and disease resistance traits. Principles of genetics and basis of population genetics, genetic parameters. Nature of DNA and RNA-their models and functions; applications of recombinant DNA technology,

UNIT – V VETERINARY ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Gross study of bones, joints and muscles of skeleton Gross study of heart and its conduction system. Gross study of organs of digestive, respiratory urinary and reproductive systems. Digestion, metabolism and absorption of carbohydrates, proteins and fats in simple stomach animals and ruminants – mechanism of respiration. General functions of blood (blood cells, plasma & serum) coagulation, cardiac cycle, Blood circulation, Blood pressure, renal function Hormonal control of Lactogenesis. Environmental factors affecting animal production – Environmental stress on animal performance – Green Houses Gases – Role of ruminants.

UNIT – VI VETERINARY MICROBIOLOGY, VETERINARY PREVENTIVE MEDICINE

Bacteriology & Mycology: Classification – isolation, identification and culturing of bacteria and fungi -Methods of transmission of infection – Sterilization and disinfection – Antibiogram. Virology: Classification, – cultivation, replication General characteristics of various families of RNA and DNA viruses. Immune system organs, tissues and cells; infection and immunity; type and grade of immunity, serological reactions and modern diagnostic techniques – vaccine. Epidemiology – Concept, Scope, Objectives and Uses. Monitoring and surveillance epidemiological disciplines. Pathogenesis, clinical signs, differential diagnosis, prevention and control of common bacterial, viral, fungal, rickettsial and parasitic diseases of livestock, poultry and pet animals including wildlife species- Regional, endemic, emerging and re-emerging important disease. Allergic skin tests and modern diagnostic techniques.

UNIT – VII PATHOLOGY AND PARASITOLOGY

Concept and causes of diseases in animals; general principles and procedures of necropsy; collection, preservation and dispatch of morbid materials for laboratory diagnosis, disease investigation; common pathological conditions seen in domestic, wild, zoo and laboratory animals and birds. Vetro-legal implications. Classification of Parasites – Parasite and parasitism in animals; important morphological features, life cycles, mode of transmission, pathogenesis, diagnosis, chemotherapy and general control measures of parasites associated with disease in animals, birds and zoo animals.

UNIT – VIII PHARMACOLOGY

Drug action – Pharmacokinetics (absorption, distribution, biotransformation and excretion), Pharmaco dynamics – local and general anaesthetics. Antibiotics and chemotherapy – Toxicology – Ethno veterinary practices.

UNIT – IX VETERINARY CLINICAL MEDICINE, VETERINARY GYNAECOLOGY AND OBSTETRICS AND VETERINARY SURGERY AND RADIOLOGY

General and special clinical examination, aetiology, clinical signs, pathogenesis, diagnosis, prevention and control of metabolic, deficiency diseases. Ethics and jurisprudence in domestic and wild animals. Reproductive physiology; hormones and reproduction; Accidents of gestation, livestock fertility and infertility; artificial insemination; semen characteristics of different species of livestock and cryopreservation. Multiple ovulation and embryo transfer technology in livestock and zoo animals Reproductive disorders and their management. General surgical principles – Pre and post-operative considerations, anaesthesia, asepsis and anti-sepsis and sterilization; scope, history and development of veterinary radiology; Imaging pathology of different parts of body-surgical emergencies – Intensive care – Physiotherapy – Diathermy.

UNIT – X LIVESTOCK PRODUCTS TECHNOLOGY

Ante mortem and Post mortem inspection – Objectives of meat inspection – Abattoir practices, methods of slaughtering and dressing; Meat Inspection Laws, utilization of byproducts; unsound meat and its disposal; quality control of meat and eggs and their

products. Milk: Proximate Composition, milk collection, cooling / chilling and transportation; physio-chemical and nutritional characters of milk and milk products; the processing of raw milk and production of market milk. Condensed and dried milk, special milk and Indian Dairy Products – Packaging and storage. Cleaning and sanitization of dairy equipment and plants; the role of micro-organisms in milk and milk products; legal standards and quality assessment of milk and milk products-role of milk and milk.