



TAMIL NADU GOVERNMENT GAZETTE PUBLISHED BY AUTHORITY

No. 42A]

CHENNAI, WEDNESDAY, OCTOBER 23, 2024
Aippasi 6, Kurothi, Thiruvalluvar Aandu-2055

Part II—Section 2 (Supplement) NOTIFICATIONS BY GOVERNMENT

பள்ளிக் கல்வித் துறை

No. II(2)/SE/1030/2024.

[பள்ளிக்கல்வி -ஆசிரியர் தேர்வு வாரியம் - முதுகலை ஆசிரியர் / உடற்கல்வி இயக்குநர் நிலை-1 மற்றும் கணினி பயிற்றுநர் நிலை-1 பணியிடங்களுக்கு ஆசிரியர் தேர்வு வாரியம் மூலம் நேரடி நியமன போட்டித் தேர்வு நடத்த மாற்றியமைக்கப்பட்ட முதுகலை ஆசிரியர் பாடங்களுக்கான பாடத்திட்டத்தை (Syllabus) அரசிதழில் வெளியிடுதல் ஆணை வெளியிடப்படுகிறது.]

கீழ்க்கண்ட அரசாணை வெளியிடப்படுகிறது:-

[அரசாணை (நிலை) எண்.219, பள்ளிக் கல்வி (ஆதேவா)த் துறை, 3 அக்டோபர் 2024,
புரட்டாசி 17, குரோதி, திருவள்ளூர் ஆண்டு-2055.]

படிக்கப்பட்டது:-

பள்ளிக்கல்வி இயக்குநரின் ந.க எண்.074007/டபிள்யூ3/இ3/2023, நாள்: 20.08.2024

ஆணை: எண், 219, பள்ளிக் கல்வி (ஆதேவா)த் துறை, நாள்: 3 அக்டோபர் 2024.

மேலே படிக்கப்பட்ட கடிதத்தில், பள்ளிக் கல்வி இயக்குநர், முதுகலை ஆசிரியர் / உடற்கல்வி இயக்குநர் நிலை-1 மற்றும் கணினி பயிற்றுநர் நிலை-1 பணியிடங்களுக்கான நேரடி நியமனம் செய்ய போட்டித் தேர்வு நடத்துவதற்கு அரசிதழில் வெளியிடப்பட்ட பாட வாரியான புதிய பாடத்திட்டங்கள் அனுப்புமாறு ஆசிரியர் தேர்வு வாரிய தலைவர் கோரியுள்ளதாகவும், அதனடிப்படையில் மாநில ஆசிரியர் கல்வியியல் ஆராய்ச்சி மற்றும் பயிற்சி நிறுவனத்தின் மூலம் பாட வல்லுநர்களைக் கொண்டு உருவாக்கப்பட்ட முதுகலை ஆசிரியர் உடற்கல்வி இயக்குநர் நிலை-1 மற்றும் கணினி பயிற்றுநர் நிலை-1க்கான பாடத்திட்டம் (Syllabus), போட்டித் தேர்வுக்கான சிறுபான்மை மொழிகளான உருது, அராபிக், தெலுங்கு மற்றும் மலையாளம் ஆகிய பாடங்களுக்கான மொழிப் பாடத்திட்டம் (Language Syllabus) தமிழ்நாடு மாநில பொதுப்பள்ளி கல்வி வாரியத்தின் ஒப்புதலுடன் பெறப்பட்டுள்ளது எனத் தெரிவித்துள்ளார்.

2 எனவே, முதுகலை ஆசிரியர் உடற்கல்வி இயக்குநர் நிலை-1 மற்றும் கணினி பயிற்றுநர் நிலை-1க்கான பாடத்திட்டம் (Syllabus), போட்டித் தேர்வுக்கான சிறுபான்மை மொழிகளான உருது அராபிக், தெலுங்கு மற்றும் மலையாளம் ஆகிய பாடங்களுக்கான மொழிப் பாடத்திட்டத்தினை (Language Syllabus) அரசிதழில் வெளியிடுமாறு பள்ளிக்கல்வி இயக்குநர் கோரியுள்ளார். (பாடத்திட்டத்தினை இணைப்பில் காணலாம்.

3. பள்ளிக்கல்வி இயக்குநரின் கருத்துருவினை நன்கு பரிசீலனை செய்த அரசு, அதனை ஏற்று, முதுகலை ஆசிரியர் / உடற்கல்வி இயக்குநர் நிலை-1 மற்றும் கணினி பயிற்றுநர் நிலை-1க்கான பாடத்திட்டம் (Syllabus) மற்றும் சிறுபான்மை மொழிகளான உருது, அராபிக், தெலுங்கு மற்றும் மலையாளம் ஆகிய பாடங்களுக்கான மொழிப் பாடத்திட்டத்தினை (Language Syllabus) இவ்வரசாணையின் இணைப்பில் காணும் தமிழ்நாடு மாநில பொதுப்பள்ளி கல்வி வாரியத்தின் ஒப்புதல் பெறப்பட்ட பாடத்திட்டத்தினை அரசிதழில் வெளியிட அனுமதி அளித்து ஆணையிடுகிறது.

(ஆளுநரின் ஆணைப்படி)

D.T.P.—II-2—Sup. (42A)—1

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GOVERNMENT OF TAMILNADU

**DIRECT RECRUITMENT FOR THE
POST OF POST GRADUATE ASSISTANTS /
PHYSICAL EDUCATION DIRECTORS – GRADE-I**

SYLLABUS

2024-2025



State Council of Educational Research and Training

Chennai - 600 006.

SUBJECT : GEOGRAPHY

SYLLABUS

Unit I PHYSICAL GEOGRAPHY

Geomorphology:

The origin of Earth: Gaseous Hypothesis of Kant, Nebular Hypothesis of Laplace, The Nova Hypothesis of Hoyle and Lytleton – **The Age of Earth:** Sedimentation method, Radioactivity method. **The Earth's Interior:** Layers of the earth interior: The Crust, Mantle, Core, Thickness and depth of different layers of the Earth, Distribution of continents and Oceans – Plate tectonics and continental drift – **Rocks:** Definition and classification: Igneous Rocks, Sedimentary rocks, Metomorphic rocks – **Mountain Building Process:** Volcanoes, Earthquakes, Mountains, Plateaus and Plains, Geomorphic processes – Denudational Agencies, **Cycle of erosion:** Davis and Penck, Theories and process of slope development.

Climatology:

Composition and Structure of Atmosphere, Solar Radiation, Heat Budget of the Earth and Atmosphere. **Distribution of Temperature:** Vertical, Horizontal distribution of temperature, Temperature Inversion – **Atmospheric Pressure:** factors affecting Atmospheric Pressure – Distribution of Atmospheric Pressure, **Wind:** Types of winds – Monsoon winds, Area of monsoon winds, the Indian monsoon, Jet stream, kinds of Humidity – **Clouds:** formation of clouds, classification of clouds, **Precipitation:** types of rainfall, **Air masses:** classification of air masses, Fronts – frontal zones, major fronts, **Cyclones:** Cyclones and Anticyclones, classification of thunderstorms – **Climatic classification:** Koppen and Thornthwaite – **Climate change:** Cause and effects of climate change – Global warming, Effect of El-Nino, La Nina.

Oceanography:

Distribution of Water and Land, **Relief of the Ocean:** Continental shelf, Continental slope, Continental rise, Mid Oceanic Ridges, Abyssal plain Island, Guyots and seamounts, Ocean deeps and Oceanic trenches – **Bottom Relief of the Ocean floors:** Pacific, Atlantic, Indian Ocean, Ocean temperature, Ocean salinity and density of Ocean water – Ocean deposits – Sea waves – **Ocean currents:** Major Ocean currents – Tides – Sea level changes – Tsunami – Coral reefs.

Unit II HUMAN GEOGRAPHY

Population Geography:

Sources of population data in India – **Population:** Distribution, Density and Growth, world population distribution, factors affecting population distribution, density patterns – measures and determinants of fertility, mortality – World's population growth and its trend – **Theories of population growth:** Malthus, Sadler and Ricardo – **Migration:** types of migration, causes of migration,

consequences of migration, **Population composition and characteristics:** Age, Sex, Rural-urban, Occupational structure and educational levels and literacy – **Population of Tamilnadu:** Population, Distribution, Density and Growth, Optimum population – Over population, Under population – Potential population, Population policies.

Settlement Geography:

Geography of settlements: Nature and Scope of Settlement Geography – **Rural Settlements:** Types, Pattern and distribution of rural settlements – Problems of Rural Settlements: Rural-Urban Migration, land use changes, Land acquisition and Transactions; Urban Settlements: Theories of origin of Towns (Gordon Childe, Henri Pirenne, Lewis Mumford) – Characteristics and process of urbanisation in Developed and developing countries – **Urban settlements:** concept and characteristics – Functional classification of urban centres – functions and characteristics of CBD – Urban morphology – **Urban Classical models:** Burger, Homer Hoyth and Harris Ullmann – Rural-Urban fringe – hierarchy of urban centres – Rank size rule – Central Place Theory – Urban problems – Slums – Urban planning – Urbanisation in India and its associated problems.

Agricultural Geography:

Nature, Scope and significance of Agricultural geography – Approaches to study of Agriculture geography – Land Capability, Classification and land use planning – Determinants of Agriculture – Von Thunen's Theory of agriculture location – Agricultural productivity – crop combination (weaver's, Doi's, Raffiullah's), Crop diversification, **Types of Crops:** Food crops, Horticultural crops – Plantation crops, Fibre crops – Agricultural Systems of the world – Agricultural regions of India – Agricultural regions of Tamilnadu, Role of Remote sensing in Agricultural Studies.

Urban Geography:

Nature and scope of urban Geography – trends of urbanisation – size, structure and functions of urban areas – urban systems: law of primate city and rank size rule – Center Place theories: Christaller and bosch – Internal structure of the city – **Models of urban land use:** Burgess, Harris, Ullman and Homer Hoyt – **Concept of cities:** Mega cities, Global cities, edge cities – **Changing urban form:** peri-urban areas, rural – urban fringe – Sub-urban, ring and satellite towns – social segregations in the city – urban social area analysis – **Urban issues:** slums, in formal sectoral growth, crime and social exclusion.

Transport Geography:

Nature, scope and significance of transport Geography – Different types of transportation – Merits and demerits of transport – Terminal charges and operating charges – Tapering cost structure – Variation in freight structure on distance – Commodity – Size and elasticity of demand – Long haul advantages – Nodes and links – Connectivity – Accessibility – Centrality – Structural analysis

of transportation network – Graph theoretic measures – Measures of nodal accessibility – Matrix measures – Detour index – Theories of spatial interaction – Gravity model – Transportation and spatial structure – Role of transport in socio-economic integration – Urban and regional transport planning – Problems of transport.

Cultural Geography:

Concept of cultural – Evolution of Human beings – Major Races of the World – Culture interaction and diffusion – Culture exchange – **Measurement of Human Development:** Social, Economic and Environmental Indicators – Human Development Index.

Social Geography:

Nature and scope of social geography – Environmental and landscape ecology – Social structure (family, marriage and kinship) and processes – Rural and urban society – spatial distribution of ethnicity – Tribe – Dialect – Language – caste and religion in the world with special reference to India – welfare and social well being – Quality of life – Health – Education, Economic Status – Gender – well being of women – Spatial distribution of social groups in India – Health care planning and policies in India.

Economic Geography:

The significance of Economic Geography – Factors affecting spatial organisation of economic activities – **Natural resources:** Classification of Resources – Renewable and non – renewable resources – Distribution and associated problems conservation of resources – **Industries:** Agro based Industries – Mineral based Industries – Engineering – Industries – Chemical industries – Industrial regions of the world – Trade blocs – Major importing and exporting countries – World Energy crisis in developed and developing countries.

Political Geography:

Trends and development in political Geography – Geography of federation – Boundaries and frontiers of India – Electoral reforms in India – **Geopolitics:** climate change, world resources and Indian Ocean – **Regional organisations of co-operations:** SAARC, ASEAN, OPEC and EU – Neopolitics of world natural resources – India's Foreign Policies.

Unit III

GEOGRAPHICAL THOUGHT

Contributions of Greek, Romans, Arabs, German, French, British, America and Indian scholar in geography – **Contemporary trends in Indian geography:** Cartography, Thematic and Methodological contributions – **Major Geographic Traditions:** Earth science, Man and Environment relationship, Area studies and spatial analysis – Dualism in Geographical studies: physical vs human, region vs systematic, qualitative vs quantitative – Paradigm shift

in Geography – **Perspectives in Geography:** Positivism, Behaviouralism, Humanism, Feminism and Post modernism.

Unit IV REGIONAL DEVELOPMENT AND PLANNING

Definition of region – Evolution – Types of region – Formal and functional region – Planning region – Need and types of regional planning – Characteristics and ideal planning region – Delimitation of planning region – Regionalisation of India for planning – Theories and models of regional planning – Growth pole model of perroux, growth centre model in Indian context myrdal, rostow and Friedman – Village cluster – Changing concept of development – Concept of under development – Efficiency – Explicitness – Indicators – Economic, social and environment – Global pattern of development – Inter-regional variation of human development – International – Interstate comparison of India – Geospatial technology of regional planning.

Unit V GEOGRAPHY OF RESOURCE

Natural Resource: Concept, Classification and Techniques – Distribution, Utilisation of resources – Problems and Management of Land Resources and Water Resources – Distribution, Utilisation, Problems and Management of Forests and Energy Resources – Appraisal and Conservation of Natural Resources – Sustainable Resource Development – Concepts and definitions of Disaster and Natural Hazard – **Disaster:** Disaster Management Cycle – Basic Concepts of Disaster Risk Reduction (DRR) – **Hazards:** Hazard types and hazard mapping – **Vulnerability:** types and their assessment – physical, social, economic and environmental vulnerability – Disaster Risk Assessment – approaches and procedures for disaster management.

Unit VI GEOGRAPHY OF ENVIRONMENT

Nature and scope of Environmental Geography – Concept of an Ecosystem – Structure and function of an Ecosystem – **Ecosystem:** Types of ecosystem – Forest, Grassland, Desert, Aquatic Ecosystem – Ecological succession – Energy flow in an ecosystem – **Biogeochemical Cycle:** Carbon, Nitrogen, Oxygen, Phosphorus and sulphur cycle – Food Chain, Food web, Ecological pyramid – **Biomes:** Major Biomes of the world: Tundra Biome, Temperate forest biome, Coniferous forest biome, Temperate Grassland biome, mediterranean biome, Savanna biome, Tropical Evergreen Rainforest biome, Monsoon Deciduous forest biome, Desert biome – **Biodiversity:** Hotspots of biodiversity – **Threats to biodiversity:** Habitat loss, poaching of wildlife, Man-wildlife conflicts – Endangered species of India – **Conservation of biodiversity:** In situ and Ex situ Conservation of biodiversity – hydrological cycle – International programmes and policies – Environment policy of India.

Unit VII GEOGRAPHY OF INDIA

Major physiographic Regions and their Characteristics – Drainage system – Indian Monsoon – Soil – Vegetation – Water – Mineral and Marine Resources – Regional variation in Agricultural Development – Population characteristics – Growth and Composition – development population – population policies in India – Development and Pattern of Transport – Internal and External Trade – Regional Development planning in India – Trade policy – Export Processing zones – India Space programme – Natural Disasters in India.

Unit VIII GEOGRAPHY OF TAMILNADU

Tamil Nadu: Location – Administrative units of Tamil Nadu – **Physiography:** Mountains, Plateaus, Plains – **Climate:** Seasons (South West, North East Monsoon, summer and winter) – **Rainfall:** Cyclonic Rainfall – Distribution of Rainfall – Rivers of Tamil Nadu – **Soils:** Types of Soil – **Natural Vegetation:** Forest and its types – Flora and Fauna – Wild life sanctuaries – Bird sanctuaries – Botanical gardens. **Distribution of Crops:** Food Crops: Paddy, Millets, Pulses, Oilseeds – **Cash Crops:** (Sugarcane, Cotton) – Plantation Crops (Tea, Coffee, Rubber and Spices) – Livestock (cattle, sheep and dairying) – Fisheries (inland and deep sea fishing). **Distribution of Minerals and Industries:** Metallic, Non-Metallic (Iron, Manganese, Bauxite, Copper, Mica, Illuminate and power resources) – Agro Based Industries – (Textile, Sugar, Paper) – Cement – Automobile – **Population:** Distribution – Growth, Density and Population Problems – **Transportation:** Roadways, Railways, Airways, Waterways Trade: (Import and Export) – Special Economic Zones.

Unit IX CARTOGRAPHY

Nature and scope of cartography – Maps: History and definition of maps – classification of maps – Scope and types of scale – **Map projection:** Meaning, definition, shape, distance, area and direction properties – classification of projections – Selection of projection – **Map compilation and design:** Base map concepts, scanning and digitization – Topographic and thematic maps – elements of maps and layouting principles – **Map design:** fundamental symbol, conventional signs, color theory, colors or patterns, Map lettering – **Map making:** Definition of Choropleth, Isopleth maps – class interval selection and shading – flow maps – cadastral maps – Demographic and statistical mapping – Map reproduction – Map printing – Printing standard in various medium.

Unit X**TECHNIQUES IN GEOGRAPHY**

Definition of Remote Sensing – Advantages and limitations in remote sensing – Remote Sensing System – Platforms and sensors – Resolutions in remote sensing – **Satellite data products:** Analog and digital products – Visual Image Interpretation – **Digital Image Processing:** Pre-processing, post-processing, **Digital Image Interpretation:** Supervised and unsupervised classification – Change detection analysis – Basic concepts of Geographic Information System (GIS) – Components of GIS – **Data Models in GIS:** Relational and entity relational model – **Data structure:** Raster and Vector – Data requirement – Methods of data capturing – Meta data – Raster and Vector Query – Geographic visualization – Data analysis – Geo statistical analysis.

Professor Academy