

KPSC Assistant Director Exam Pattern

Subjects	Marks	Time
General Studies	200	3 hours
Urban Regional Planning	200	3 hours

KPSC Assistant Director Syllabus

(I) PAPER – I GENERAL STUDIES:

1. General Science
2. Current events of State, National and International Importance
3. History of India
4. World Geography
5. Indian Polity & Economy
6. Indian National Movement and General Mental ability.

(II) PAPER – II URBAN REGIONAL PLANNING

1. SOCIO-ECONOMIC BASIS FOR PLANNING

- Man and Environment. Traditional patterns and trends of change in Indian society, concept of social structure, culture and social institutions.
- Relation between social structure and spatial structure. Social aspects of housing. Social problems of slums.
- Economic resource, Typology of goods, production economics, process, laws, product and costs. Economies of scale, external economies, valuation, typology of markets, land and real estate market, macroeconomic
- Basic economic analysis, economic principles and land use, economic rent, land use pattern and land values.
- Development of land and real property, financial balance sheet of land development.
- Land and real property markets : private ownership and social control over land.

2. PLANNING THEORY

- Aims and objectives of planning. Levels of planning in India and their inter-relationships, Planning Administration.
- Models of the planning process, components of settlement structure.
- Models of urban structure. Demand and supply of land for urban use, means and mechanisms. Impact on Urban Structure. Goals of land policy.
- Concepts of land use; (systems affecting land uses and rationale for land use planning).
- Locational attributes of land uses. Land use planning information system. Activity system and choice of space qualities.

- System approach and physical planning. Mixed scanning and approach to land use planning. Introduction to spatial planning at regional level.
- Choice theory and advocacy planning and their relevance. Action planning and its application in Indian context.
- Development plan-types scope and objectives; local/area and regional levels.

3. **PLANNING TECHNIQUES**

- Planning practice in India, an overview. Methods of identifying urban and regional problems, setting of goals, objectives and priorities. Performance standards, spatial standards and standards for utilities. Classification of regions, regionalization and delineation techniques for various types of regions. Cluster and factor analysis methods. Analysis for understanding structure of urban areas; land value and density patterns, locational dimensions of population groups. Forces of concentration and dispersal. Social Area Analysis, Strategic choice approach and technique of interconnected decision area analysis. Introduction to (i) Techniques of system simulation; Grain Lowry model (ii) Linear programming (iii) Threshold analysis. Preparation of urban and regional development plans-various approaches; comprehensive planning, System approach to planning, Case studies identifying use of techniques.
- Aerial photography – Basic principles and techniques of photogrammetry, photo interpretation and remote sensing.
- Collection of data by photo-interpretation and remote sensing techniques, analysis, interpretation of this data and compilation of interpreted data for thematic maps.
- Specific applications in urban and regional planning, traffic and transportation planning, housing, urban design and landscape analysis.

4. **TRANSPORTATION PLANNING**

- Evaluation of urban structure : Transport systems, infrastructure and management, transport systems and their types, design and operating characteristics, urban road hierarchy, planning, engineering and management criteria for road and junction improvements, arterial improvement techniques.
- Transport survey and studies : Study area definitions, survey and their types, sampling methods, survey techniques, programming, processing of travel data, analysis and interpretation of traffic studies.
- Analytical techniques : Techniques for urban structure analysis, urban travel characteristics, urban transport planning process, land use transport interrelationship and models, scenario building and their analysis.
- Mass transit systems: problems and prospects, tramways, trolley buses, LRT's, RTS-operation characteristics, planning transit systems.
- Management of transport systems : Existing organizational and legal framework, traffic and environmental management techniques. Review of existing traffic management schemes in Indian cities.
- Regional transport systems: Importance of accessibility in regional transport planning. Role of road rail air and water transport systems. Regional transport systems planning, road network planning for micro regions.

- Transport and environment : Traffic noise, factor affecting noise statement measures, standards, air pollution standards, traffic safety, accident reporting and recording systems, factors affecting road safety, transport planning for target groups, children, adults, handicapped and women. Norms and guidelines for highway land scape, street lighting types, standards and design considerations.
- Economic evaluation. Pricing and funding of transport service and systems, economic appraisal of highway and transport projects.
- Techniques for estimating direct and indirect road user costs and benefits, value of time.

5. HISTORY OF HUMAN SETTLEMENTS

- Relevance of evolution of human settlements in modern context, historical determinants, mobility, socio-cultural beliefs, climate, technology, political power, geographical location, etc., Settlement types and patterns; ancient, mediaeval renaissance and industrial age.
- Human scale in settlement planning. Ancient texts and treatises, settlements and area planning in ancient India.
- City as a living spatial entity. Ekistics and the city, contribution of Ebenezer Howard, Geddes, Mumford and others in city planning.
- Planning of settlements in colonial era.

6. PROJECT FORMULATION AND APPRAISAL

- Introduction to the life cycle of a project, project identification, formulation, appraisal, monitoring and evaluation. The role of project formulation and appraisal in the planning process.
- Methodology for project identification and formulation of opportunity studies, feasibility reports and detailed project reports. Policy parameters for appraisal of project reports. Planning Commission guidelines, requirements of principle financing agencies in the field of urban and regional planning. Review of project appraisal techniques adopted by financing agencies. Cost-effectiveness analysis and costbenefit
- Financial cost-benefit analysis. Cash flow analysis, time value of money, discounted cash flow analysis. Measures of project profitability based on market prices. Net present value , internal rate of return, benefit cost ratio, etc. Exercises and case studies.
- Economic cost-benefit analysis. Distinction between market prices and accounting prices, objective functions in economic cost-benefit analysis, derivation and application of shadow wage rates. Measures of project profitability based on efficiency prices. Case Studies.
- Social cost-benefit analysis : Trade-offs between efficiency and equity goals in project appraisal, measurement of direct and indirect costs and benefits in different sectors of urban and rural development.
- Adjustments for project impact on saving and investment, income distribution, consumption of merit and demerit goods. Case Studies.
- Techniques for identifying and assessing conditions of risk and uncertainty in the project environment. Sensitivity and probability analysis in the Indian context.

- Emerging trends in the decision making process with respect to project appraisal and resource allocation at various levels of government.

7. SOCIAL FORMATION AND CHANGE

- Persistence and change in the nature of social grouping in India-caste, community and family.
- Human ecology : Ecological approach in study of Indian cities – limitations of conventional approaches, role of socio-cultural aspects in the growth patterns of a city.
- Urbanisation : Perspectives on nature and trends towards a mass culture.
- Tradition and modernization technology and change, aspects of social tension. Illustrative cases of social perspective in Planning.
- Planning for recreation and provision for religious activities. Changing role of public participation and voluntary organizations. Social dimensions of urban and rural poor.

8. STATISTICS AND POPULATION STUDIES:

- Statistics: Theory of probability, random variables and distribution of sample statistics. Some important sampling distributions.
- Statistical inference : Estimation of population parameters, testing of hypotheses.
- Elementary association models : Chi-square test : simple linear regression and correlation. Time-series Analysis.
- Index Numbers: Statistics available for spatial analysis : An appraisal.
- Population Studies: Introduction, Scope, method, subject matter and relevance for spatial planning, sources of demographic data.
- Interrelations : Population change, socio-economic dimension of development and pattern of human settlements.
- Population, composition and spatial distribution ; population structure and composition, spatial distribution – causes and implications of spatial differentiation.
- Analysis of labour force, mortality and fertility, Life table techniques, relevance for spatial planning.
- Theory models and measurement of internal migration, Internal migration and urban growth.
- Population estimation and projection Techniques relevant for regions and settlements.
- Indian population census data : An appraisal.

9. LAND ECONOMICS

- Economic concepts of land : Objectives, scope of land economics, relevance for spatial planning. Economic principles of landuses, factors of specific uses like residential, industrial, commercial and institutional. Development of land, real property and process. Cost of development; source of finance.
- Real property market : Hetrogenity and imperfections, principles and practices.
- Economic aspects of land policies at various levels of decision making.

10. DESIGN OF HUMAN SETTLEMENTS

- Role of urban design in the planning process.
- Social choices and design options. Ecological determinants in urban settlement design. Identification of design resource.
- Principles of structuring urban spaces, locational parameters of activities and urban uses.
- Imageability of the city.
- Determinants of urban patterns and forms, landuse density and networks, energy, urban form, impact of technology and construction techniques, standards and implications of regulatory control on urban form and design, design in relation to renewal and re-development of central areas.
- Issues related to changing practices of planning human settlements as applied to spatial design. Urban design projects, identification, scope and relationship with development plan-case studies. Planning and design parameters for new towns, selected case studies.
- Urban conservation and design, contemporary approaches, priorities in urban conservation and nature reserves, integration of historical monuments and areas in the development process.

11. HOUSING:

- Definition of housing, housing as a basic need. Housing as an integral component of comprehensive urban and regional development. Housing form as shaped by physical , technological, socio-economic, demographic and political factors. Role of housing in social and economic development. Housing as an index of social welfare. Housing in relation to stages of development particularly as related to development economy.
- Micro and Macro economic views of the housing sector. Housing situation and India in quantitative and qualitative terms. Housing statistics.
- Obstacles to provision of housing in India and emerging issues and priorities in urban rural housing.
- Basic considerations for the formulation of viable housing policy and programmes in consonance with availability of resources and feasibilities of implementation and management. Housing policy option in developing countries.
- Housing programmes in Five Year Plans of India, Social housing programmes.
- Role of private and co-operative sectors in housing. Housing in the informal sector. Problems of slums and squatting.
- Public housing programmes, site and services and slums upgradation approach.
- The concept of housing standards-issues involved in formulation of standards.
- Housing and its relation to non-residential components of the settlement.
- Socio-cultural perspective of housing. Housing and family life.
- Principles of community organization. Social sources of residential satisfaction. Community participation in the design and implementation of housing programmes.
- Public housing agencies in India at National, state and settlement level. Their functions and programmes.

12. ECOLOGY AND RESOURCE DEVELOPMENT:

- Evolution of Ecology, Man and ecosphere Components of nature and some basic concepts, process of ecology, flow of material, water, energy, invasion, succession, predation, regulatory forces, adaptation, trophic levels, food chains, food web, ecological pyramids.
- Eco-system and their relevance to environment, resources and human settlements. Modifications in natural environment, causes and consequences.
- Impact of advanced agriculture-methods, urbanization and industrialisation on nature.
- Pollution, types, sources, remedies.
- Urban eco-system approach, evolution and significance.
- Introduction to quantitative ecology.
- Identification of ecological parameters for planning at different levels. Site planning settlement planning, regional planning.
- Data needs, formats for data collection. Types of analysis required to evolve ecological parameters.
- Ecological awareness in India, traditional indigenous methods, contemporary trends. Endowments and resources, definition and classification according to different criteria, endues, renewable, nonrenewable
- Space bound and flow resources, preparation and analysis of resource inventories and resource matrices.
- Finiteness of resources, examples of transfer from one resource to another in history in different parts of the world.
- Development, utilization and conservation of resources, resource planning, integrated resource planning approach.
- Resource regions, their problems and potentials.
- Resource management, traditional and contemporary approaches.
- Resource development in India, some selected areas (energy, water, manpower, etc.)

13. DEVELOPMENT MANAGEMENT

- Development management aspects, National goals and political-economic system effecting it. Development management and development process. System of local government in India-Development administration at National, State, District and Local level and the process of decision making, development and management.
- Functions, powers, structure and resources of local governments and their performance.
- Identification of other non-government development organizations and their relationship with local governments. Possibilities of qualitative improvement in plan administration.
- Public relation and citizen participation.
- Personal management, Manpower planning, performance, appraisal, motivation, and morale.
- Organisational behaviour-organisation theory, authority and conflict, administration communication, leadership in administration, organizational changes.
- Organisational structure and plan implementing agencies.
- Local financial system in India-local taxation and fees, state and local fiscal relations, financing local services, local expenditure, capital budgeting and performance

budgeting., Financial resource mobilization, Policies and programmes of related financial institutions, administrative aspects of investment.

- Land management practices and policies.
- Classical persuasive and non-persuasive strategies and techniques. New techniques of management by objective {MBO} –integrated reporting system, flow diagrams, bar charts, mile stones-networks {CPM & PERT}, line of balance {LOB}, Techniques of monitoring of development works, standard oriented cost control, turn keys system, vertical production method, inventory cost control technique, unified status index

14. REGIONAL PLANNING AND DEVELOPMENT:

- Spatial planning in the regional context. Concepts and theories of marginality, growth and development. Issues in regional development, dualism and dependency, efficiency, equity and environmental goals, theories of spatial organization polarised growth, spread and backwash, centre and periphery.
- National Planning framework and general approach in India. Philosophy and status of regional planning in the planning process, sectoral, multi-level and integrated approach to planning, national policies on income distribution and provision of minimum basic needs.
- Regional analysis techniques to understand regional spatial structure, regional economy, planning styles in development in developing countries and contemporary approaches to regional development, structural and functional aspects, agropolis and its applicability to India.
- Development strategies in the regional context in relation to urban/rural area, people prosperity, growth pole and growth centre strategies, small and medium towns, industrial, regional, special area strategies, for metropolitan region.
- Techniques of target fixation in regional development inter-sectoral co-ordination. Formulation phasing and implementation of integrated area development plans and development plan for regions.

15. ENVIRONMENTAL PLANNING & DESIGN:

- Components of natural and built environment. Human, physical social and culture. Conceptual understanding of duality of life.
- Environmental criteria for location of human settlements. Recycling and resources conservation. Priorities and strategies for development at various area levels.
- Environmental standards for various landuses.
- Environmental Planning; Programme co-ordination and protection. Energy and human settlements.
- Innovation in technology application and energy use.

16. NETWORK AND SERVICES:

- Concepts and theories of design and operation of urban services and network systems- water supply, sewage disposal, drainage, refuse collection, recycling and disposal,

electricity network and telephone network, health care and education, police protection and fire fighting, general welfare.

- Operational planning for emergency evacuation in urban areas, basic needs, formulation of objectives, norms and standards both for space allocation and quality control.
 - The network and service systems: components, interrelationship requirements and need of appropriate technology. Effects of density, land use and urban structure on design of network and service systems.
- Cost recovery, economics of urban service system and networks.

17. ENVIRONMENTAL IMPACT ASSESSMENT

- Quality of life, concepts, indicators, measurements and applications, Environmental standards.
- Environmental impact assessment: Methodologies, techniques, data requirements and costs. Applicability of EIA to urban Development programmes. Integration of EIA methodology to the planning and development processes. Environmental planning and management strategies and approaches relevant to urban and approaches relevant to urban and regional planning. Environmental protection in urban areas, co-ordination and enforcement, legislative aspects, population control, technological aspects.

18. CITY AND METROPOLITAN PLANNING AND DEVELOPMENT

- Trends in the dynamics of growth of urban centers in India, urbanization, metropolitanisation and urban primacy, causes and consequences: measures to reduce the rate of growth of metropolitan areas.
- Physical structure of large cities and metropolitan complexes in India, land use, traffic and transportation, housing, utilities, services and community facilities, present deficiencies.
- The economic maladies of the Indian metropolis, the industrial, commercial and tax bases, unemployment and urban poverty, growth of the informal sector, measures to increase employment and to strengthen the economic base.
- The social contours of the metropolises, changes in the family size and structure, culture, occupation, income and life-style, urban-rural dichotomy and social pathology of the large city.
- The management of the metropolitan government and finances, proliferation of local authorities, overlapping jurisdiction; metropolitan planning and development agency, its powers and functions, need for unified urban administration.

19. VILLAGE PLANNING AND RURAL DEVELOPMENT

- Relevance of rural area for urban development, mutual dependence between urban and rural areas, between industry and agriculture, characteristics of symbiotic development and the pattern of urban development in India in this context.
- Levels of living of rural people-trends of development differentials in level of development differentials in level of development between various regions within India

and different socio economic group. National planning and rural development. Concepts of planning for rural settlement. Regional development and urban rural partnership; related inputs and infrastructural development.

- Agricultural development, allied activities, and patterns of rural linkages, communication and marketing facilities, community development, institutions and delivery of social services.
- Rural settlements, typology, structure, spatial significance in metroregions and interior areas. Planning principles for villages and community norms.
- Rural reconstruction, Basic needs and rural sanitation, water supply, hygiene and drainage, technology transfer and options.
- Area, district and block level development planning and implementation, public participation in rural development process, role of voluntary organization.
- Rural energy issues, renewable and alternative sources of energy.
- Ecological and environmental considerations in rural development and village planning.

20. PLANNING LEGISLATION AND PROFESSIONAL PRACTICE

- Concepts of law, Sources of law (i.e.,) custom, legislation and precedent) meaning of terms of law, legislation, ordinance, bill, act, regulations and bye-laws, Significance of law and its relationship to urban planning.
- Benefits of statutory backing for schemes – eminent domain and police powers. Indian Constitution, Concept and contents.
- Provisions regarding property rights.
- Legislative competence of State and Central Governments to enact town planning legislation.
- National Environmental Policy Act.
- Evolution of planning legislation.
- An over view of legal tools connected with urban planning and development. Town and Country Planning Act, Urban Planning and Development Authorities Act objectives, contents, procedures for preparation and implementation of regional plans, master plans and town planning schemes.
- Concept of arbitration, betterment levy, development charges and public participation in statutory planning process.
- Concept of structure plan, local plan and action plan under the English law. Land Acquisition Act, 1894.
- Basic concept, procedure for compulsory acquisition of property and determination of compensation. Urban land (Ceiling and Regulation) Act 1976 – objectives, contents and planning implications.
- Significance of land Development Control – objectives and legal tools, critical evaluation of zoning, sub-division regulations, building regulations, and bye-laws.
- Development code, zoning law and law relating to periphery control. Introduction to law relating to slum clearance, housing, landscape and traffic.
- Legislation relating to urban conservation and restoration, historical monuments, archaeological sites. Aims and objectives of professional institutes, sister bodies, professional role and responsibility of planning consultants, professional ethics, code of conduct and scale of professional change.

- Formulation of project proposal and outlines : Consultancy agreements and contracts ; managerial aspects. Role in inter-disciplinary groups. Appreciation of the decision making process and the process in relation to varied consultancy assignments of planning.

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