

Annexure 2

Syllabus of Town Planning paper for the recruitment of Assistant Town Planner

1. Basic Planning and Design

Visual composition in 2D and 3D; Computer application in Planning; Anthropometrics; Organization of space; Circulation- horizontal and vertical; Space Standards; Universal design.

2. Urban Design, landscape and Conservation

Historical and modern examples of urban design; Elements of urban built environment- urban form, spaces, structure, pattern, fabric, texture, grain etc.; Concepts and theories of urban design; Principles, tools and techniques of urban design; Public spaces, character, spatial qualities and Sense of Place; Urban design interventions for sustainable development and transportation; Development controls- FAR, densities and building byelaws; Urban renewal and conservation; heritage conservation; historical public spaces and gardens; Landscape design; Site planning.

3. Planning process

Salient concepts, theories and principles of urban planning; concepts of cities- Eco-City, Smart City; Concepts and theories by trend setting planners and designers; Ekistics; Urban sociology; Social, Economic and environmental cost benefit analysis; Methods of non-spatial and spatial data analysis.

4. Services and Infrastructure Planning

Water supply and distribution system; Water harvesting systems; Principles, Planning and Design of storm water drainage system; Sewage disposal methods; Methods of solid waste management- collection, transportation and disposal; Recycling and Reuse of solid waste.

5. Regional and Settlement Planning

Regional delineation; settlement hierarchy; Various schemes and programs of central government; Transit Oriented Development (TOD), Special Economic Zone (SEZ), Special Residential Zone (SRZ); Programs and Schemes; Slums, Squatters and informal housing; Standards for housing and community facilities; Housing for special areas and needs.

6. Environmental Planning

Natural and man-made ecosystem; Ecological principles; Environmental considerations in Planning and design; Environmental pollution- types, causes, controls and abatement strategies; Sustainable development, goals and strategies; Climate change and built environment; Climate responsive design.

7. Urban Land, Financing, Governance and Project Management

Land Pooling Scheme and Development Mechanism- Land amalgamation, reorganization, reconstitution, and consolidation; Land Economics- Value Capture Financing- Floor Space Index Optimization, Transferable Development Rights incentivization techniques; Greenfield Development; Urban Re-development and Retrofitting - Asset Monetization and Brownfield Development; Preparation of Pre-Feasibility Report; Feasibility Report; Detailed Project Report.

8. Transportation Planning

Process and Principles of Transportation Planning and Traffic Engineering; Hierarchy of roads and level of service; Public transport and Mass rapid transport systems; Planning for enhancing walkability; Non Motorized Transport (NMT); Green belt, Road marking and street light; Road capacity and Travel demand forecasting; Traffic survey methods, Traffic flow Analysis; Traffic analyses and design considerations; Traffic and transport management and control in urban areas; Mass transportation planning; Intelligent Transportation Systems; Land-use-transportation-urban form inter-relationships; Design of roads, intersections, grade separators and parking areas; Para-transits and other modes of transportation, Pedestrian and slow moving traffic planning.

9. Housing

Housing typologies; Concepts, principles and examples of neighbourhood; Residential densities; Affordable Housing; Real estate valuation; National Housing Policy.

10. Planning Techniques and Management

Population Projection, Tools and techniques of Surveys-Physical, Topographical, Land use and Socio-economic Surveys; Urban Economics, Law of demand and supply of land and its use in planning; Graphic presentation of spatial data; Local self-governance, Panchayati raj institutions; Planning Legislation and implementation- Land Acquisition Act, PPP etc.; Application of G.I.S and Remote Sensing techniques in urban and regional planning; Decision support system and Land Information System; Urban geography and econometrics; Management of Infrastructure Projects; Demography and equity in planning.

11. Legislative framework in planning with respect to Bihar

73rd and 74th Constitutional Amendment Act, Bihar Urban Planning and Development Act and Rules; Bihar Building Bye Laws; Development control & urban regulatory concepts; Area Development Scheme; Transit Oriented Deveopment policy; Function of Arbitrator, Tribunal for appeal.

12. Urbanization, Government schemes and missions in context of Bihar

Development guidelines such as URDPFI; Government Schemes viz. Smart City Mission, AMRUT, HRIDAY.

13. Functions of government organizations for planning and governance in urban areas

Urban Governance; People's participation Its impact on Planning/Policy Formulation; Role of elected representatives in urban governance.

14. Formulation and Implementation of Development Plan

Types and hierarchy of plans; Plan Formulation; Plan Modification; Review and Monitoring of Plan; People's Participation; Resource Mobilization for Development Plan Implementation; Land Assembly Techniques;