SYLLABUS FOR Ph.D. ENTRANCE EXAMINATION

PLANNING

(i) Planning Principles and Techniques: Concepts, theories and principles of urban and regional planning; Rational Planning Approaches and Models; Recent and contemporary contributions to the changing planning paradigms; Types of plans – Master Plan, City Development Plan, Structure Plan, Zonal Plan, Action Area Plan, Town Planning Scheme, Regional Plan, Metropolitan Plan.

(ii) Urban Planning Urban Planning process: Land use Planning – Zonal/sub-city level; Urban Land Economics; Emerging concepts of cities – Eco-City, Smart City, Transit Oriented Development (TOD), SEZ, SRZ etc.; Law of demand and supply of land and its use in planning; Metropolitan Area Planning; Urban renewal and conservation; Site planning; Planning & Management of Informal Sector.

(iii) Regional Planning Regions: city region; Regional Economics; Techniques of delineation of regions; Regional Analysis; Models of regional development; Intra-urban and inter-urban inequalities; Metropolises and its Region; Rural Planning; Approaches to rural development in India; Five year Plans and rural development; Sustainable rural development.

(iv) Environmental Planning Ecosystem: natural and man-made ecosystem; Ecological principles; Concepts of Environmental Impact Analysis; Environmental considerations in planning and design; Water sensitive Urban Development; Environmental pollution- types, causes, controls and abatement strategies; Planning for Disaster Management; Ecological zoning, Ecologically sensitive areas, Coastal Zone Regulations; Principles of Sustainable Development.

(v) Housing Housing: Concepts, principles and examples of neighbourhood; Housing typologies; Slums; Affordable Housing; Housing for special areas and needs; Residential densities; Standards for housing and community facilities; National Housing Policies, Programs and Schemes; Real Estate Planning & Management.

(vi) Transportation Planning: Process and Principles of Transportation Planning; Road capacity; Traffic survey methods; Traffic flow characteristics; Traffic analyses and design considerations; Travel demand forecasting; Land-use-transportation-urban form inter-relationships; Design of roads, intersections, grade separators and parking areas; Hierarchy of roads and level of service; Traffic and transport management and control in urban areas; Mass transportation planning; Para-transit and other modes of transportation, Pedestrian and slow moving traffic planning; Intelligent Transportation Systems.

(vii) Infrastructure Planning Physical Infrastructure: Water Supply, Sewerage, Drainage, Solid Waste Management, Electricity and Communications; Principles of water supply and sanitation systems; water treatment; Water supply and distribution system; Water harvesting

systems; Principles, Planning of storm water drainage system; Sewage disposal methods; Methods of solid waste management – collection, transportation and disposal; Recycling and Reuse of solid waste; Power Supply and Communication Systems, network, and guidelines. Social Infrastructure including Health, Education, Recreation facilities, Civic Amenities, Distributional services, etc.; Economic Infrastructure; Spatial data as infrastructure; Impact of technology on infrastructure.

(viii) Planning Legislation and Public Policy Planning: Legislation and implementation – including development control and zoning regulations; laws relating to land acquisition.; Local self-governance; urban land ceiling; land management techniques; planning and municipal administration; disaster mitigation management; 73rd & 74th Constitutional amendments; Development guidelines such as URDPFI; public participation and roel of NGO & CBO; Institutional networking & capacity building.

(ix) Project Formulation & Implementation: Planning Project formulation; Projects and planning issues; Approaches of appraisal; Techniques of financial appraisal; Project management; Project implementation, monitoring and evaluation; Management of Infrastructure Projects; Social, Economical and environmental cost benefit analysis.