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SYLLABUS FOR THE POST OF PLANNING ASSISTANT
UNDER URBAN DEVELOPMENT & POVERTY ALLEVIATION

PAPER – I

1. Planning Technique	-	20 Marks
2. Surveying	-	10 Marks
3. Engineering	-	70 Marks
Total	-	100 Marks

Town Planning Technique – Definition, objects and principles, drawings, reports, zoning-housing-importance, demand for houses, slums-causes and its characteristics, recreation-types of recreation, legal tools for land and building construction-norms & standard, Master Plan, stages of preparation, method of execution, Project Planning, Site Plan and Layout Plan, urban renewal Plan.

Surveying and leveling – Principal of surveying, chain surveying, adjustment of chain, tape and its correction, survey station, tie station, forebearing and backbearing, levels, types of leveling, contouring, plain table surveying, theodolite, prismatic compass.

Building material and construction works – Occurrences of principal building stone in India, characteristics of good building stone, stone quarrying.

Bricks – Classes, sizes, harmful ingredients, earthenware and stoneware.

Cements – Types of cements, storage, aggregate, coloured cement.

Sands – Quality of good sand, mortars, proportioning for concrete and its method, transporting, placing, compacting and curing of concrete, formwork, stripping of formwork, water proofing and elasticity of concrete, joint in concrete, adhesive, concrete hollow block, paints, varnishes, distempers.

Timber and its classification, characteristics of good timber.

Loads of buildings – Dead load and live load, wind load, types of roofs, AC sheet, lead sheet, water proofing roofs.

Masonry structure – Stone masonry and its types, brick masonry, bond in brick works, strengthening masonry.

Retaining wall – (Types of R/W) forces on R/W, stability requirement.

Drainage Works – Culverts, hume pipe, RCC slab culvert, cause way, sub-surface drain, road side drain.

Pavement – Rigid and flexible pavement, material use.

Water supply and sanitary engineering – Sources of water, hard and soft water, type of pipe used in water supply system of distributor, septic tank – its compartments, factors governing septic tank, types of manhole.

Foundation engineering – Site exploration and soil sampling, subsoil exploration, types of soil, load bearing capacity of soil, types of foundation, Permissible settlements, bearing capacity of pile.

Reinforced cement concrete – Design value, factored load, stress – strain relationship for concrete, singly and doubly reinforced beams, moments of resistance, modes of failure, maximum depth of neutral axis, effective span, minimum and maximum tension reinforcement, shear stress, control deflection, cracking, slenderness and vibration, effective length of column and its requirement of reinforcement, column – Footings, reinforcement in slab.

Measurement, evaluation and estimating – Different types of estimates, method of valuation, preparation of detail project report (DPRs)

Earthquake – Nature, magnitude and its intensity scales, effects of seismic forces on buildings, Design consideration for buildings.

PAPER – II

100 Marks

1. General English	-	50 Marks
2. General Knowledge	-	50 Marks