



অসম লোকসেৱা আয়োগ

ASSAM PUBLIC SERVICE COMMISSION

No. 62PSC/DR-6/1/2016-17

Dated Guwahati, the 8th September, 2017

NOTIFICATION

It is for general information for the concerned candidates who had applied for the post of Asstt. Engineer Civil under the PWD vide advt. no. 02/2017 dated Guwahati the 6th March 2017, the syllabus may be read as below:

SYLLABUS (Degree Standard)

Total Marks: 200

Time: 2 hours

Section A: General Studies:

Full Marks: 100

(50 Multiple Choice Objective Type Questions)

1. Political system of India
2. Indian Economy
3. Planning Process in India
4. Role of Science and Technology in India
5. General Mental Ability
6. Current Events of National and International Importance

Section B: Civil Engineering:

Full Marks: 100

(50 Multiple Choice Objective Type Questions)

1. Construction Materials:

Road & Building Material – timber, stone, brick, sand, mortar concrete, paints, bitumen etc.

Detailing of walls, floors, ceilings, stair cases, doors and windows, finishing of building plastering, painting, ventilation, air conditioning, lighting and acoustics etc.

2. Theory of Structure:

Bending moment and shear force diagrams for statically determinate beams, analysis of statically determinate structures, slopes and deflection, columns, fixed and continuous beams, elastic theory of arches, suspension girder bridge, analysis of frame, concept of structural stability, retaining wall, moving loads and influence lines.

3. Design of Structures:

Design beams, columns slabs, footing, design of compression members, design of roof truss, pre-stressed concrete, water tank, plate girder, tubular structures, concept of earthquake resistant design, use of Indian Standard Codes, Design of Bridges.

4. Transportation Engineering:

Introduction: Mode of transportation, highway planning, geometric design of highways, testing and specifications of paving materials, design of flexible and rigid pavements.

Traffic Engineering: Traffic characteristics, theory of traffic flow, intersection design, traffic sign and signal design, highway capacity.

5. Engineering Surveying:

General Principles, sign convention surveying instruments and their adjustment, recording of survey observations, plotting of maps and sections, errors and their adjustments. Measurement of distances, directions and heights, correction to measure length and bearings, correction for local attractions, measurement of horizontal and vertical angles, leveling operations, refraction and curvature corrections, chain and compass survey, theodolite and tachometric traversing, traverse computation, plane table survey, solution of two and three points problems, contour surveying, setting out direction and grades and type of curves, setting out of curves and excavation lines for building foundations.

6. Geotechnical Engineering:

Soil mechanics: Origin of soils, soil classification, soil compaction, shear strength, soil parameters – liquid limit, plastic limit, plastic index etc.

Foundation Engineering: Sub-surface investigations – drilling bore holes, sampling, penetration tests, plate load test.

Foundation Types: Foundation design requirements, bearing capacity of soil, stress distribution, settlement analysis in sands and clays, deep foundations-pile foundation, pile types, load capacity of piles in sands and clays, negative skin friction.

7. Environmental Engineering:

Water pollution, air pollution, noise pollution – causes, effects and prevention measures.

8. Estimation & Valuation:

Introduction, specifications of work, rate analysis, schedule of rates, preparation of estimates for road and building projects.

Basic knowledge of value, rental method of valuation, land and building methods of valuations.

9. Construction Management:

Introduction, stages of construction, bar charts and networks, role of equipment and modern construction industries.

Sd/-
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