

Nepal Telecom

Nepal Doorsanchar Company Ltd.

Syllabus

Paper Second (Specialized subject for Civil Engineer Level 7 **Open competition**)

Time: 2 hours

Full Marks: 100

Pass Marks: 40

All the Questions are Compulsory

Types of question	Number of questions	Marks	Total Marks	Remarks
Objective Questions	30	1	30	1/4 marks will be deducted for each incorrect answer
Short Questions	10	4	40	
Long Questions	3	10	30	
			100	

Use of non-programmable calculator is permitted in the examination hall.

1. **Theory of Structures (15~25%)**
Deflection of Beams, Statically Determinate and Indeterminate Arches and frames, Consistent Deformation Method, Slope Deflection Method, Moment, Distribution Method, Introduction to Plastic Analysis, Basic concept of Matrix, Method of Analysis, Analysis of Building Frames for vertical and lateral loads
2. **Design of Reinforced Concrete Structures (15~25%)**
Concrete Structures and Design Concepts, Working Stress Method, Limit State, Method and design of structural members using this method, Detailing of structural members, ductile detailing of members, Basic concept of Prestressed Concrete
3. **Design of Steel Structures (7 ~ 15%)**
Steel Structures, Analysis of Telecom Towers, Design of tension members, Design of Axially and Eccentrically loaded compression members, Design and Detailing of Joints, Design of Beams, Design of Roof Trusses
4. **Surveying (7 ~ 15%)**
Linear measurements, Chain and Compass survey, Leveling and contouring, Plane tabling, Traversing, Tachometry, Field astronomy and GPS system
5. **Water supply and Sanitary Engineering (3 ~7%)**
Sources of water, Quantity and Quality of Water, Water Treatment Systems, Conveyance of water, Valves and fittings, Design and Construction of Sewers, Sewer appurtenances, Disposal of sewage from isolated Buildings.
6. **Construction Management (15~25%)**
Specifications and Contractual Procedure, Equipment for excavation, fill, transportation, compaction and concrete construction, Cranes for lifting materials

and parts, Construction Process, Construction Planning, Regulatory Requirements, Maintenance project, Personnel Management, Record Keeping

7. Estimating and Valuation (10 ~ 20%)

Method of Estimating, Preparation of Detailed Estimate, Types of Estimates, Analysis of rates, Valuation

द्रष्टव्य :

१. प्रश्नहरू अंग्रेजी तथा नेपाली दूवै वा कूनै एक भाषामा मात्र पनि सोध्न सकिनेछ ।
२. प्रश्नहरू सैद्धान्तिक, व्यवहारिक र विश्लेषणात्मक किसिमबाट सोधिनेछन् ।
३. परीक्षार्थीहरूले अंग्रेजी वा नेपाली मध्ये कूनै एक वा दूवै भाषामा उत्तर दिन सक्नेछन् ।
४. प्रश्नहरूसंग सम्बन्धित ऐन, नीति, नियम तथा प्रचलित नेपाल कानूनहरू (नेपाल दुरसञ्चार कम्पनी लिमिटेडसंग सम्बन्धित समेत) मा परीक्षा मिति भन्दा तीन महिना अघिसम्ममा संशोधन भई कायम रहेका व्यवस्था लागु हुनेछ ।
५. यथासम्भव सबै शिर्षकहरूलाई समेट्ने गरी प्रश्नहरू सोधिनेछन् ।