

नेपाल टेलिकम
(नेपाल दूरसंचार कम्पनी लिमिटेड)
प्राविधिक सेवा, सिभिल ईन्जिनियरिङ्ग समूह, तह ८ बरिष्ठ इन्जिनियर (सिभिल) पदको खुल्ला
प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

प्रथम पत्र

समूह -क (Section A) - ऐन नियम, विनियम तथा नीतिहरू

समूह -ख (Section B) व्यवस्थापन र सामान्य ज्ञान (Management and General Knowledge)
तथा समसायमयिक विषयहरू (Contemporary Issues)

Full Marks: 100

Pass Mark: 40

Time: 3 hours

1. समूह -क (Section A) अन्तरगत निम्न अनुसार प्रश्न सोधिनेछ :

| S. No. | Type of question | No. of Questions | Weightage / question | Total Marks |
|--------|------------------------|------------------|----------------------|-------------|
| 1 | Short Answer questions | 4 | 5 | 20 |
| 2 | Long Answer questions | 2 | 10 | 20 |
| | Total | | | 40 |

Note: Only one short question shall be prepared for each topic group.

2. समूह -ख (Section -B) अन्तरगत निम्न अनुसार प्रश्न सोधिनेछ :

| S. No. | Type of question | No of Questions | Weightage / question | Total Marks |
|--------|------------------------|-----------------|----------------------|-------------|
| 1 | Short Answer questions | 6 | 5 | 30 |
| 2 | Long Answer questions | 3 | 10 | 30 |
| | Total | | | 60 |

Note:

- Only one short question shall be prepared for each topic group.
- There should be one long question for each of the topic group (General management, Project management / contemporary issues).
- One of the long questions should be Comprehensive type with problem presentation seeking answers on problem analysis and solutions.

१. दूरसञ्चार सेवा सम्बन्धि नीति

- दूरसञ्चार नीति, २०६०
- सूचना तथा सञ्चार क्षेत्रको दिर्घकालिन नीति, २०५९
- सूचना प्रविधि नीति, २०६७
- रेडियो फ्रिक्वेन्सि नीति, २०६९
- VOIP को नियमन सम्बन्धी विद्यमान व्यवस्था (Call Bypass, Grey market of VOIP)

२. दूरसञ्चार सेवा सम्बन्धि ऐन, नियम तथा विनियम

Weightage- 50% - 60%

- नेपाल दूरसञ्चार कम्पनी लिमिटेडको प्रबन्ध पत्र
- नेपाल दूरसञ्चार कम्पनी लिमिटेडको नियमावली
- नेपाल दूरसञ्चार कम्पनी लिमिटेडको आर्थिक विनियमावली, २०७१
- नेपाल दूरसञ्चार कम्पनी लिमिटेडको कर्मचारी विनियमावली, २०६१
- सञ्चार संस्थान ऐन, २०२८
- दूरसञ्चार ऐन, २०५३ र दूरसञ्चार नियमावली २०५४
- विद्युतीय (इलेक्ट्रोनिक) कारोबार ऐन, २०६३
- नेपाल ईन्जिनियरिङ्ग परिषद ऐन, २०५५ तथा आचार संहिता

३. आर्थिक कारोबार सम्बन्धि ऐन, नियम तथा विनियम

Weightage-10%-20%

- सार्वजनिक खरिद ऐन, २०६४ र सार्वजनिक खरिद नियमावली, २०६४
- भ्रष्टाचार निवारण ऐन, २०५९
- मूल्य अभिवृद्धि कर ऐन, २०५३ र मूल्य अभिवृद्धि कर नियमावली

४. अन्य

Weightage- 10%-20%

- कम्पनी ऐन, २०६३
- उपभोक्ता संरक्षण ऐन, २०५४ तथा नियमावली
- सूचनाको हक सम्बन्धी ऐन, २०६४ र सूचनाको हक सम्बन्धी नियमावली, २०६४
- जग्गा प्राप्ति ऐन, २०३४
- आवश्यक सेवा सञ्चालन ऐन, २०१४

5. Telecom Development Organization, Regulators and operators

Weightage-10%-20%

- International Agencies : ITU, APT, WTO - their major roles and relations with telecom operators, Network Readiness Index, Digitization Index
- UAO, USO, USF
- Telecom regulations : Regulatory Objectives, Sector Reform Initiatives in Nepal
- National Regulator: Nepal Telecom Authority (NTA) - Organization and functional role in sector development

- Major National Telecom Operators: Their Services and market Shares Comparative strengths and weaknesses

Section- B (समूह - ख) - व्यवस्थापन र सामान्य ज्ञान (Management and General Knowledge) तथा समसायमयिक विषयहरु (Contemporary Issues)

अंकभार -६०

1. Engineering Economics

Weightage (5%-15%)

- Capital Investment, Decision, Analysis and evaluation Techniques (NPV, IRR, PBP, PI)
- Life cycle management (MTTF/MTTR)
- Inventory management
- Depreciation, capitalization, amortization

2. General Management

Weightage (15%-25%)

- Roles and responsibilities of team leader
- Team building & synergy creation
- Delegation of Authority
- Management of time
- Problem solving and decision making
- Team Management
- Motivation
- Communication Skill & Interpersonal Relation
- Performance appraisal
- Staff discipline
- Total Quality management
- Industrial Relation/Peace
- Productivity Management

3. Project Management

Weightage (20%-40%)

- Concept of project planning and management
- Project goal setting
- Recent project planning approaches
- Project feasibility study- demand /need forecasting and analysis, Technical Analysis and economic analysis, environmental analysis
- Project scheduling
- Project life cycle
- Project Implementation plan (PERT, CPM, Network diagram, Gantt Chart)
- Project evaluation indicators/ techniques
- Project proposal & reporting, control & monitoring
- Basics of procurement of goods, services and civil works

- Contract negotiation

4. Marketing Management

Weightage (5%-15%)

- Marketing concept & Strategies- Product / service, Pricing & promotion & marketing channels
- Customer relationship Management- Concept, roles & functions Branding and its importance
- Competition, Competitive advantage, Competitor analysis
- Market demand and segmentation
- Service Marketing
- Marketing management issues and challenges of NT

5. Financial Management

Weightage (5%-15%)

- Capital Structure planning
- Budgeting and budgetary control
- Financial Statement and financial Ratio analysis
- Working Capital management
- Financial, Technical and Performance auditing

6. Risk Management

Weightage (5%-15%)

- Concept, Identification and Measurement
- Types of risks (Business, Project, System, Market)
- Risk Analysis and risk factors
- Techniques of managing risks
- Emergency management

7. Contemporary issues

Weightage (5%-15%)

- Current organization and management issues and challenges facing NT
- General Organizational structure of telecom company
- Outsource principle & current trend
- Media relationship management
- Inter-organizational relations
- Collective decision
- Other current issues

द्रष्टव्य :

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

नेपाल टेलिकम

(नेपाल दूरसंचार कम्पनी लिमिटेड)

प्राविधिक सेवा, सिभिल ईन्जिनियरिङ्ग समुह, तह ढ वरिष्ट ईन्जिनियर (सिभिल) पदको खुल्ला प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

देश्रो पत्र

Full Marks: 100

Pass Mark: 40

Time: 3 hours

देश्रो पत्र अन्तरगत निम्न अनुसार प्रश्न सोधिनेछ :

| S. No. | Type of question | No of Questions | Weightage / question | Total Marks |
|--------|--|-----------------|----------------------|-------------|
| 1 | Analytical Review | 4 | 15 | 60 |
| 2 | Analytical and Solution oriented questions | 2 | 20 | 40 |
| | Total | | | 100 |

Note:

- At least one question should be comprehension type.
- There should be questions seeking case study.
- Answers on problem resolutions should be divided in four parts as following
 - Problem identification
 - Relate problem resolution with appropriate government & company rules and regulations
 - Strategies & suggestions for problem resolutions
 - Methods for strategy implementation, monitoring and evaluation

प्राविधिक सेवा सम्बन्धि (Technical Service Related)

1. Theory of Structures (Weightage 5% - 15%)

Area, Volume, Centroid, Moment of Inertia, Forces and Moments, Bending Moment and Shear Force, Frictional Forces, Basic Concepts of deflection

2. Design of Reinforced Concrete and Steel Structures (Weightage 10% - 20%)

Concrete Structures and Design Concepts, Working Stress and Limit State Method, Design of Slabs, Simply Supported and cantilever beams, Detailing of structural members, Basic concept of Steel Structures

3. Surveying (Weightage 5% - 15%)

Linear measurements, Chain and Compass Survey, Leveling and contouring, Plain table survey, Traversing

4. **Architecture & Building Construction** (Weightage 5% - 15%)
Local and modern building materials in Nepal, Present status of office building and the need for standardization, prospects and challenge for maintenance and rehabilitation of buildings, Evaluation of building construction technology in Nepal and its relation to modern Structural Engineering
5. **Urban Development** (Weightage 5% to 10%)
Master planning, Structure Planning, Local area Planning, Guided Land Development (GLD), Land pooling
6. **Water Supply and Sanitation** (Weightage 5% - 10%)
Sources of water, Water quality, Intakes, Pipelines design, design of distribution system, Pipe materials and jointing, Environmental health engineering, waste management
7. **Estimating and valuation** (Weightage 5% - 15%)
Method of Estimating, Preparation of Detailed Quantity and Cost Estimate, Analysis of rates, Valuation of Land and Civil Engineering Structures
8. **Environment Impact Assessment** (Weightage 5% - 10%)
Concept of EIA (Environment Impact Assessment), IEE (Initial Environmental Examination) and their principles, Screening, scoping, initial impact identification, TOR (Terms of Reference) preparation, Environmental auditing.
9. **Construction Management** (Weightage 10% - 20%)
Specifications and Contractual Procedures, Contract Management, Plant and machineries, Construction Process, Construction Planning, Quality Control and assurances, Financial Management related to Construction
10. **Maintenance and Safety Engineering** (Weightage 5% - 10%)
Occupational Health and Safety (OHS), Types of Maintenance (Preventive and Corrective), Emergency, Hazards and risks in construction and safety measures

द्रष्टव्य :

१. प्रश्नहरू अंग्रेजी तथा नेपाली दुवै वा कुनै एक भाषामा मात्र पनि सोध्न सकिनेछ ।
२. प्रश्नहरू सैद्धान्तिक, व्यावहारिक र विश्लेषणात्मक किसिमबाट सोधिनेछन् ।
३. परीक्षार्थीहरूले अंग्रेजी वा नेपाली मध्ये कुनै एक वा दुवै 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 ।