

# नेपाल टेलिकम

(नेपाल दुरसंचार कम्पनी लिमिटेड)

सहायकस्तर तह - ५ को प्राविधिक सेवा, प्राविधिक समुह, टेक्निसियन पदको आन्तरीक प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

विषय	पुर्णाङ्क	उत्तिर्णाङ्क	समय
नीति, ऐन, नियम, कानुन, व्यवस्थापन तथा सेवा सम्बन्धी	१००	४०	३ घण्टा

समुह (क) नीति, ऐन, नियम तथा कानुन

अंक भार २०

१. दुरसंचारको विकास र दुरसंचार नीति २०६०
२. नेपालमा आर्थिक उदारीकरण र दुरसंचारको विकास
३. नेपाल दुरसंचार कम्पनी लिमिटेडको कर्मचारी विनियमावली २०६१ को विदा, हाजिरी, आचरण तथा अनूशासन, सजाय र पूनरावेदन आयकर कट्टी गर्ने, पूरस्कार, बरबूभारथ, अधिकार प्रत्यायोजन सम्बन्धी व्यवस्था ।
४. नेपाल दुरसंचार कम्पनी लिमिटेडको आर्थिक विनियमावली २०७१ को भाग २ परिच्छेद ३ को सामान खरिद सम्बन्धी व्यवस्था (दफा १५,१६,१८,१९,२१,२३,२४,२५, २७,३४,३७) तथा आर्थिक प्रशासन सम्बन्धी कार्य विधि (दफा १३२,१३३,१३६,१४०)
५. कम्पनी ऐन, २०६३ को १, २ र ३ परिच्छेदहरु
६. दुरसंचार ऐन, २०५३ को परिच्छेद ७ र ८

समुह (ख) व्यवस्थापन

अंक भार २०

Organization structure, mission vision & Goals of Nepal Telecom, Job analysis and job description, Employee motivation techniques, Handling complaints and grievances, Public relation, Marketing tools and techniques, Customer attraction satisfaction and retention, Disciplining staff, Sales promotion, Voucher entry, Ledger, Trial Balance Inventory management, Team works, Communication skills

समुह (ग) सेवा सम्बन्धी

अंक भार ६०

## 1. Mathematics and statistics

- A. Area and perimeter of triangle, quadrilaterals and circle; Surface area and Volume of cylinder
- B. Unitary method, percentage, profit and loss, simple and compound interest, ratio and proportion
- C. Central tendency : mean, median, mode and dispersion

- D. Number system: Binary, Hexadecimal
- E. Probability, Sampling
- F. Scalar and Vector
- G. Simple differentiation and integration

## **2. General Science**

Laws of motion; Gravitational force and force due to gravity; Specific density and specific gravity; Archimides' Principle; Pascal's law; Difference between mass & weight, force and pressure; Reflection & Refraction of light, Resistance, Capacitance, Inductance, Coulomb's Law, Ohm's Law, Basic knowledge of electric circuit, series and parallel circuit, Kirchoff's Law; Fleming's Left and Right hand Rules, Basic principles of Transformer, Generator and Motor; Basic knowledge of diode, Zener diode and Transistor(PNP, NPN); Logical gates: AND, OR, NOT, NAND, NOR; Analog & digital system, Modulation & demodulation, Impedance.

## **3. Information and communication technology (ICT)**

General knowledge of computer hardware and software, internet, intranet, modem, local and wide area networking, router and switches, general knowledge of MS office (Word, Excel, Power point)

## **4. Access network**

Basic external plant- structure and elements of telephone network, symbols and maps used in outside plant, Aerial plant installation – Erection of poles, stay and push brace, Cable hanger, Pin type bracket; Splicing and enclosing; Subscriber installation; MDF structure; Types of faults, Maintenance of network- Types of maintenance, MCC; FTTH Network- OLT, Level splitter, CPE, Fusion splicing techniques, Civil works for access network- Manhole, Handhole, Trenching & Ducting; Types of ducts used in NT network; Over view of ADSL, ADSL line test parameter; Overview of ONU; Knowledge of L2 and aggregation switches, Router, optical modem and BRAS. Safety measures while working in outside plant; First aid.

## **5. Transmission Network**

Basic transmission network, basic PDH/ SDH/ SPDH, Microwave radio/ antenna, IP concept for transmission network, Introduction of IDU/ ODU of PDH/ SPDH equipments; Basics of DWDM and packet transport network; Basics of ADSS and OPGW; Basics of L2 & L3 switches, Router, BRAS and electrical& optical modem; Network Operation Centre; Safety measures while working in transmission plant;

## **6. Core Network**

Introduction to NGN- soft switch, TG, SG, IN; Access gateways- MSAN, MSAG, VoIP DSLAM; ADSL overview, Concept of L2, L3 switches, modem, Router and

BRAS; Signalling basics, Concept of IP; SIP; OMC; Preventive and corrective maintenance, Protection mechanisms for switching equipments from electrical shock.

## 7. Power System

Basic knowledge of single phase and three phase AC supply; Basic knowledge of solar power system, solar panel, solar regulators; Primary and secondary cell, cells in series and parallel, Lead acid and sealed batteries; Invertors, Online/ Offline UPS, Rectifier, Basic knowledge of diesel generator, Relationship between power, voltage and current; Air conditioning units, Free cooling system; Earthing and shielding techniques for telecom equipments, Lightning protections, General Faults in electric wiring, generator, aircondition and rectifier, Electrical hazards and Safety precautions.

## 8. Wireless Communication

GSM/ UMTS evolution and architecture, CDMA architecture, WiFi, WiMax

## 9. Measuring instruments & Tools

Various types of mechanical tools, Pliers& wrenches, Cable cutter, Winch machine, Multimeter, Voltmeter, Ammeter, Wattmeter, VSWR meter, Tong tester, Sequence tester, Frequency meter, OTDR, DSP meter, GPS.

### 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 मितिभन्दा तीन महिना अघिसम्ममा संशोधन भई कायम रहेका व्यवस्था लागु हुनेछ ।
५. प्रश्न तथा अंकभार निम्न अनुसार हुनेछ ।

### समुह (क)

एक प्रश्न	१० अंक
दुई प्रश्नहरू	५/५ अंक

### समुह (ख)

एक प्रश्न	१० अंक
दुई प्रश्नहरू	५/५ अंक

### समुह (ग)

छ प्रश्नहरू	१०/१० अंक
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