

NEPAL TELECOM

Nepal Doorsanchar Company Ltd.

Syllabus

Syllabus for Free Competition written examination for Assistant Engineer (Telecom)
(Level 6)

Full Marks: 100
Pass Marks: 40

Time: 2 hours

Part II (Subject for Computer Group)

Types of Questions	No. of Questions	Marks	Total	Remarks
Objective	30	1	30	1/4 marks will be deducted for each incorrect answer
Short-Answer Questions	10	4	40	
Long-Answer Questions	3	10	30	

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

- 1. Computer Architecture Concept (Weightage:10-20%)**
Basic components of CPU (ALU, Registers, I/O Address), General concept of Memory systems: main, virtual, cache, Types of Primary Memory and their uses (RAM, DRAM, PROM, EPROM, SRAM), Binary and Hexadecimal numbering system
- 2. Secondary storage Device (Weightage:5-15%)**
Usage of Tracks, Cylinders, sectors and head in the hard disk, Properties of Hard disk (Access time, Seek time, Throughput), Types of storage devices and their uses (Floppy disk, CD, CDR, CDRW, Pen drive)
- 3. Operating System (Weightage:5-15%)**
Windows operating system, File and Folder Management using windows, installing new fonts
- 4. Database design and Relational Database Management System (Weightage:5-15%)**
Entity relationship diagram, Data flow diagram, Structured Query, Language (SQL)
- 5. Information Security (Weightage:5-15%)**
Protection against viruses, Basic concept on Data backup and Restore, Information Security of an organization – general concept
- 6. Computer programming (Weightage:5-15%)**
Types of programming languages, General concept of Structured programming and object oriented programming, Software testing - basic concept, Software reliability, quality and maintenance
- 7. Computer to Computer communication (Weightage:10-20%)**
Dial-up Modems and its uses-Different kinds of modems, speed, standards, Error detection and correction techniques, Data compression techniques, Modulation techniques used in Dial-up modem, Local area networks: Topology, Basic working

principle of Ethernet standard, Introduction of Transmission media used in LAN, Basic concept of Wide area networks, Bridge, router, gateway, Basic concept of xDSL services: General introduction to HDSL modem and its uses, General concept of ADSL service (Upload/Download speed, Customer Premises Equipment CPE, Splitter), Services over ADSL – basic introduction

8. Basic operational knowledge of MS-office packages (Weightage:5-15%)

MS word, MS Excel, MS Power Point

9. Internet Fundamentals (Weightage:5-15%)

Fundamentals of Internet and Email, Email address, Internet address, Sending and receiving email, Creating mail account in windows, IP addressing and sub netting