

द्वितीय पत्र :- सेवा समूह सम्बन्धी

पूर्णाङ्क : १००

1. Introduction
 - 1.1 General concept on National Telecommunication Planning
 - 1.2 Importance of Telecommunication in National development
 - 1.3 Social & Cultural aspects of Telecommunication
 - 1.4 Relevance of global information network
2. Telecommunication Systems and Engineering Design
 - 2.1 Wireless systems
 - 2.1.1 Satellite
 - 2.1.2 Microwave/Ultra High frequency (UHF)
 - 2.1.3 Wireless Local loop (WLL)
 - 2.1.4 Cellular
 - 2.2 Wireline systems
 - 2.2.1 PSTN
 - 2.2.2 Optic fibre
 - 2.1.3 LAN
 - 2.1.4 WAN/MAN
 - 2.1.5 Broadband cable
 - 2.3 Telecommunication system analysis and planning
3. Voice systems
 - 3.1 Transmission and Switching systems
 - 3.2 Multiplexing and signaling
 - 3.3 Alerting & supervision
 - 3.4 Call traffic Engineering
 - 3.5 Network optimization
4. Data systems
 - 4.1 Transmission systems
 - 4.2 Digital Multiplexing
 - 4.3 Broadband techniques-DSL, ATM, SONET
 - 4.4 ISDN
 - 4.5 VoIP
5. Internet systems
 - 5.1 Internet and World Wide Web
 - 5.2 Protocols used in network and applications
 - 5.3 Capabilities
 - 5.4 Privacy and security issues
6. Digital Networks
 - 6.1 Architecture
 - 6.2 Network components
 - 6.3 Framing
 - 6.4 Channelization and signaling
 - 6.5 Digital voice and video

लोक सेवा आयोग
नेपाल इन्जिनियरिङ्ग सेवा, इलेक्ट्रोनिक्स एण्ड टेलिकम्युनिकेशन समूह, राजपत्रांकित द्वितीय श्रेणीको खुला तथा
आन्तरिक प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

- 6.6 Packet and Switched services-ATM, xDSL, Frame Relay, X-25
- 6.7 Encryption and security issues

- 7. Video systems
 - 7.1 NTSC, PAL, SECAM standards
 - 7.2 Transmission and reception
 - 7.3 Video compression and standards
 - 7.4 HDTV

- 8. Electronic Aviation systems
 - 8.1 Communication systems-voice, ATN
 - 8.2 Navigation systems
 - 8.2.1 Terrestrial radio navigation systems- rho theta, hyperbolic
 - 8.2.2 Satellite radio navigation systems
 - 8.2.3 Inertial navigation systems
 - 8.2.4 Multisensor navigation systems
 - 8.2.5 Landing systems
 - 8.3 Surveillance systems
 - 8.3.1 Primary RADARs
 - 8.3.2 Secondary RADARs
 - 8.3.3 Precision Approach RADARs
 - 8.3.4 Electronic Security system
 - 8.3.5 Flight check the standardization of com\ Nav Aid facilities
 - 8.3.6 New trends in Aviation Electronic system
 - 8.4 Air Traffic Management

- 9. Telecommunication laws and regulations
 - 9.1 Regulation of Telecommunication and Broad casting
 - 9.2 Regulation of information and information providers
 - 9.3 Information and communication Technology (ICT) and Cyber law.

- 10. Radio spectrum management
 - 10.1 Spectrum management principles
 - 10.2 National spectrum management policies
 - 10.3 Equipment Authorization and monitoring
 - 10.4 Spectrum measurements and monitoring
 - 10.5 General methodology for approval of transmitting and radiating equipment
 - 10.6 Engineering Spectral analysis and interference resolving

- 11. Concepts of Telecommunication economics
 - 11.1 Fundamentals of Electronic Commerce
 - 11.2 Internet and networking economics
 - 11.3 Tariff and market segmentation concepts
