



**ELECTIVE - I**  
**Advanced Telecom Network Management**  
**(1052)**

**P. Pages : 2**

**Time : Three Hours**

**Max. Marks : 100**

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answer sheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Attempt **any five** Questions.

1. a) Define and Explain in Detail 10
  - i) Full Availability
  - ii) Blocking Probability
  - iii) GOS
  - iv) Grading
- b) Design 3 stage network for connecting 100 incoming trunks to 100 outgoing trunks. 10
2. a) Explain Virtual Private Network in detail. 10
- b) Explain Private National & International Numbering scheme and numbering plan for ISDN in detail 10
3. a) Explain Lost call System in detail. 10
- b) Explain typical 18GHZ Band DMR - Transceiver 10
4. a) Explain 10
  - i) DES Weaknesses
  - ii) Security of DES for Brute Force Attack
- b) Explain Satellite System Configuration. 10
5. a) Explain Elliptic Curve Cryptography in Detail. 10
- b) Explain diffie - hellman Key Exchange Algorithm in Detail. 10

6. a) What are the different Classical Encryption Techniques ? Explain any one them in detail. **10**
- b) What are the different digital signature schemes ? Explain any one in detail. **10**
7. a) What are the different Versions of SHA ? List their Characteristics & Explain SHA - 512 in detail. **10**
- b) Compare between Fixed & One - time Password. **10**
8. Write short notes on **20**
- i) B - ISDN
  - ii) Authentication & Authorization
  - iii) Cryptography Mode
  - iv) RSA Algorithm

\*\*\*\*\*