

BESM III C choice based) Summer 2026

Duration: 3 Hours

Maximum Marks: 80

EXTC 16/5/26

N.B.:

1. Question No.1 is compulsory.
2. Out of the remaining five questions attempt any three questions.
3. Assume suitable data if required and state it clearly.
4. Figures in brackets to the right indicate full marks.

- 1 Attempt any FOUR (20)
 - a What drives the need for network management system in an organization? (5)
 - b Describe the purpose and function of an SNMP proxy server. (5)
 - c Compare and contrast MIB and MDB. (5)
 - d List and classify the major network management standards. (5)
 - e Explain why an NMS requires both Performance Management and Security Management functions. (5)
- 2 a Discuss the concept of Dumbbell architecture in network management, supported by a diagram. (10)
- b Discuss how the User-Based Security Model provides security in SNMPv3 (10)
- 3 a Explain with a diagram the physical architecture of TMN, describing the physical blocks and interfaces. (10)
- b Explain fault management and enumerate the five sequential stages used in fault handling. (10)
- 4 a Describe the purpose of NMS in terms of OAMP – Operations, Administration, Maintenance, and Provisioning. (10)
- b Explain the use of fundamental monitoring tools (status, traffic, route) from a network administrator's perspective. (10)
- 5 a List the six event correlation approaches, then describe any one of them in detail. (10)
- b With the help of diagrams, describe the M1, M2, and M3 interfaces in ATM management and explain their functions. (10)
- 6 Attempt any TWO
 - a Discuss the concepts of Report Management and Service Level Management within a Network Management System (NMS). (10)
 - b Explain with a diagram the TMN functional architecture, and describe the various functional blocks and reference points. (10)
 - c Explain the View-Based Access Control Model (VACM) in SNMP and its role in network access security. (10)
