Exam. Code   : 208604
Subject Code :   5308

M.Sc. Information Technology 4th Semester

MIT-402 NETWORK SECURITY

Time Allowed—3 Hours]   [Maximum Marks—100

Note :— Attempt any **five** questions. All questions carry equal
marks.

1. Why is network security essential ? What are the basic
    issues to consider in order to ensure network perimeter
    security ?   20

2. What is packet filtering ? How does it work ? Are there
    any limitations ?   20

3. What is a proxy ? How does it differ from a firewall ?
    What is a stateful firewall ? How do proxy firewalls
    work ?   20

4. What is a security policy ? What does it talk about ?
    How is a security policy developed ?   20

5. How does an intrusion detection system work to ensure
    perimeter defense ?   20

6. Write the roles of the following to ensure host defense :
(1) Anti-virus software and (2) Managing users and
privileges ?   20

7. How is intrusion detection different from intrusion
prevention ? How can intrusion be prevented at host
level and at network level ? Are there any limitations of
network intrusion prevention systems ? If yes, what are
they ?   20

8. How can be secure network be planned at an early stage
i.e. in the design phase only ? Explain the design requirements
for a secure network.   20