All the Multiple Choice Question and Answer (MCQs) have been compiled from the books of Data Communication and Networking by the well known author behrouz A forouzan.

This Data Communication and Networking – Security in the Internet: IPSec, SSL/TLS, PGP, VPN, and Firewalls multiple choice Questions and Answers (MCQ) PDF covers the below lists of topics.

1. Security in the Internet Multiple Choice Question and Answer.
2. IPSec, SSL/TLS, PGP, VPN, and Firewalls Multiple Choice Question and Answer.

Practice now to sharpen your concept.

1. ________ is a collection of protocols designed by the IETF (Internet Engineering Task Force) to provide security for a packet at the network level.
   A. IPSec
   B. SSL
   C. PGP
   D. none of the above

2. ________ operates in the transport mode or the tunnel mode.
   A. IPSec
   B. SSL
   C. PGP
   D. none of the above

3. In the ______ mode, IPSec protects information delivered from the transport layer to the network layer.
4. IPSec in the ______ mode does not protect the IP header.
   A. transport
   B. tunnel
   C. either (a) or (b)
   D. neither (a) nor (b)

5. The ______ mode is normally used when we need host-to-host (end-to-end) protection of data
   A. transport
   B. tunnel
   C. either (a) or (b)
   D. neither (a) nor (b)

6. In the ______ mode, IPSec protects the whole IP packet, including the original IP header.
   A. transport
   B. tunnel
   C. either (a) or (b)
   D. neither (a) nor (b)

7. IPSec defines two protocols: ______ and ______
   A. AH; SSL
   B. PGP; ESP
   C. AH; ESP
   D. none of the above
8. ______ provides authentication at the IP level.
   A. AH
   B. ESP
   C. PGP
   D. SSL

9. ______ provides either authentication or encryption, or both, for packets at the IP level.
   A. AH
   B. ESP
   C. PGP
   D. SSL

10. IPSec uses a set of SAs called the ________
    A. SAD
    B. SAB
    C. SADB
    D. none of the above

<table>
<thead>
<tr>
<th>Answer key for MCQ SET- 1</th>
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<tbody>
<tr>
<td>Q-1 Correct Answer :IPSec</td>
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<tr>
<td>Q-2 Correct Answer :IPSec</td>
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<tr>
<td>Q-3 Correct Answer :transport</td>
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<tr>
<td>Q-4 Correct Answer :transport</td>
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<tr>
<td>Q-5 Correct Answer :transport</td>
</tr>
<tr>
<td>Q-6 Correct Answer :tunnel</td>
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<tr>
<td>Q-7 Correct Answer :AH; ESP</td>
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1. _____ is the protocol designed to create security associations, both inbound and outbound.
   A. SA
   B. CA
   C. KDC
   D. IKE

2. IKE creates SAs for _____.
   A. SSL
   B. PGP
   C. IPSec
   D. VP

3. IKE is a complex protocol based on ______ other protocols
   A. two
   B. three
   C. four
   D. five

4. IKE uses _______
A. Oakley
B. SKEME
C. ISAKMP
D. all of the above

5. A _______ network is used inside an organization.
   A. private
   B. public
   C. semi-private
   D. semi-public

6. An _______ is a private network that uses the Internet model
   A. intranet
   B. internet
   C. extranet
   D. none of the above

7. An _______ is a network that allows authorized access from outside users
   A. intranet
   B. internet
   C. extranet
   D. none of the above

8. The Internet authorities have reserved addresses for _______
   A. intranets
   B. internets
   C. extranets
   D. none of the above
9. A ______ provides privacy for LANs that must communicate through the global Internet.
   A. VPP
   B. VNP
   C. VNN
   D. VPN

10. A ______ layer security protocol provides end-to-end security services for applications.
    A. data link
    B. network
    C. transport
    D. none of the above

Answer key for MCQ SET- 2
| Q-1 | Correct Answer :IKE |
| Q-2 | Correct Answer :IPSec |
| Q-3 | Correct Answer :three |
| Q-4 | Correct Answer :all of the above |
| Q-5 | Correct Answer :private |
| Q-6 | Correct Answer :intranet |
| Q-7 | Correct Answer :extranet |
| Q-8 | Correct Answer :none of the above |
| Q-9 | Correct Answer :VPN |
| Q-10| Correct Answer :transport |
Security in the Internet multiple choice questions and answers MCQ Set-

1. ______ is actually an IETF version of ______
   A. TLS; TSS
   B. SSL; TLS
   C. TLS; SSL
   D. SSL; SLT

2. ______ provide security at the transport layer.
   A. SSL
   B. TLS
   C. either (a) or (b)
   D. both (a) and (b)

3. ______ is designed to provide security and compression services to data generated from the application layer.
   A. SSL
   B. TLS
   C. either (a) or (b)
   D. both (a) and (b)

4. Typically, ______ can receive application data from any application layer protocol, but the protocol is normally HTTP
   A. SSL
   B. TLS
   C. either (a) or (b)
   D. both (a) and (b)
5. SSL provides ________
   A. message integrity
   B. confidentiality
   C. compression
   D. all of the above

6. The combination of key exchange, hash, and encryption algorithms defines a ________ for each SSL session
   A. list of protocols
   B. cipher suite
   C. list of keys
   D. none of the above

7. In ________, the cryptographic algorithms and secrets are sent with the message.
   A. IPSec
   B. SSL
   C. TLS
   D. PGP

8. One security protocol for the e-mail system is ________
   A. IPSec
   B. SSL
   C. PGP
   D. none of the above

9. _______ was invented by Phil Zimmerman
   A. IPSec
   B. SSL
   C. PGP
   D. none of the above
10. ____ provides privacy, integrity, and authentication in e-mail
A. IPSec
B. SSL
C. PGP
D. none of the above

Answer key for MCQ SET- 3

| Q-1 | Correct Answer :TLS; SSL |
| Q-2 | Correct Answer :both (a) and (b) |
| Q-3 | Correct Answer :both (a) and (b) |
| Q-4 | Correct Answer :both (a) and (b) |
| Q-5 | Correct Answer :all of the above |
| Q-6 | Correct Answer :cipher suite |
| Q-7 | Correct Answer :PGP |
| Q-8 | Correct Answer :PGP |
| Q-9 | Correct Answer :PGP |
| Q-10 | Correct Answer :PGP |