B.G.S INSTITUTE OF TECHNOLOGY

B.G Nagara, Nagamangala Tq, Mandya District- 571448

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

NETWORK AND CYBER SECURITY (15EC835)

8th SEM E&C- CBCS Scheme

EXPECTED QUESTIONS -1 TO 5TH MODULES

EXPECTED QUESTIONS – NETWORK AND CYBER SECURITY

MODULE-1

1. Explain secure socket layer (SSL) protocol stack with a neat diagram and define the different parameters used in session and connection states. **(10M)**

   Page No: 4-6

2. Discuss security socket layer (SSL) record protocol in terms of fragmentation, compression and encryption. **(10M)**

   Page No: 6-8

3. Explain the various phases of SSL handshake protocol**. (12M)**

   Page No: 10-13

4. Explain the two SSL concepts with their parameters. **(10M)**

   Or

   What is the difference b/w SSL connection and SSL session? **(04M)**

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5. Explain SSH Protocol stack. **(8M)**

   Page No: 21-22

6. Explain SSH Transport Layer Protocol Packet Formation. **(8M)**

   Page No: 23-24

7. Explain SSH Transport Layer Packet Exchanges. **(6M)**

   Page No: 32-33

MODULE-2

1. Explain PGP.(**06M)**

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2. With a neat diagrams, Explain PGP Cryptographic Functions or PGP Functions (Authentication, Confidentiality, Confidentiality and Authentication). (**14M)**

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3. With a neat diagram, explain RADIX-64 conversion. (**06M OR 08M**)

Page No: 11-13

4. Write a short note on S/MIME and RFC 5322. (**06M)**

Page No: 13-14

5. Discuss multipurpose internet mail extensions (MIME).(**10M)**

Page No: 14-15

6. With a neat diagram, explain internet mail architecture.(**10M)**

Page No: 27-28

7. With a neat diagram, explain DKIM strategy OR DKIM Deployment.(**10M)**

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8. With a neat diagram, explain DKIM functional flow. (**10M)**

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MODULE-3

1. With neat diagrams, explain ip security scenario. **(8M)**

   Page No: 3-4

2. Discuss transport and tunnel modes. **(8M)**

   Page No: 6-7

3. With a neat diagrams, explain ip traffic processing (Outbound and in-bound packets).**(10M)**

   Page No: 11-13

4. With a neat diagram, explain ESP Packet format. **(10M)**

   Page No: 14-15

5. With a neat diagram, explain anti – reply service**. (6M)**

   Page No: 16-17

6. Discuss transport mode ESP (IPv4&IPv6) and tunnel mode ESP (IPv4&IPv6). **(12M)**

   Page No: 17-20

7. With a neat diagram, explain basic combinations of security associations. **(10M)**

   Page No: 24-25

8. With a neat diagram, explain IKE header format. **(8M)**

   Page No: 32-33

9. Write a short note on cryptographic suites. **(5M)**

   Page No: 35-36

MODULE-4

1. Discuss Security Architecture. (**5M)**

Page No: 2

2. Discuss document driven certification and accreditation. (**6M)**

Page No: 3-4

3. Discuss policy driven security certifications. (**6M)**

Page No: 4-5

4. With a neat diagram, Discuss Antipatterns Concept. (**6M)**

Page No: 6-7

5. Discuss forces in cyber antipatterns. (**6M)**

Page No: 7-8

6. Discuss Cyber Antipattern Templates and its types. (**10-12M)**

Page No: 8-9

7. Discuss Can't Patch Dumb. (**6M)**

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8. Discuss Never Read the Logs.(**6M)**

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9. Discuss No Time for Security.(**6M)**

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MODULE-5

1. Explain the role of zachman framework in Cyber security(only explanation).(**6-8M)**

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2. With a neat diagram, explain the Zachman framework for enterprise architecture**. (10M)**

   Page No: 2-3

3. Discuss primitive models versus composite models. (**8M)**

   Page No: 4

4. Discuss architectural problem solving patterns.(**12M)**

   Page No: 5-6

5. Discuss mini patterns for problem solving meetings.(**8M)**

   Page No: 8-9

6. Discuss managing administrator and root accounts. (**8M)**

   Page No: 10-11

7. Discuss installing system protection / anti malware(Host based security(HBS)).(**8M)**

   Page No: 18-19

8. Write a short note on Configuring firewalls.(**5M)**

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