

# CBCS SCHEME

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18EC821

## Eighth Semester B.E. Degree Examination, Jan./Feb. 2023 Networks Security

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Explain the different squirting Approaches. (08 Marks)  
b. What are the security principle, and explain any two principles. (12 Marks)

OR

- 2 a. With help of the block diagram, explain the Active and Passive attacks. (10 Marks)  
b. What is a Worm? What significant difference between a Worm and a virus? (04 Marks)  
c. What is packet spoofing? Mention its three possible cases. (06 Marks)

### Module-2

- 3 a. Explain the security Socket Layer Architecture. (10 Marks)  
b. Describe the overall operation of the record protocol in SSL. (10 Marks)

OR

- 4 a. Explain the packet exchange sequence, in the SSH Transport Layer Protocol. (10 Marks)  
b. Mention the types of security threats faced when using the web. (06 Marks)  
c. What is the purpose of HTTPS? (04 Marks)

### Module-3

- 5 a. Explain the IP Security Architecture. (10 Marks)  
b. Mention the application of IP security. (04 Marks)  
c. What are the benefits of IP security? (06 Marks)

OR

- 6 a. Explain the top – level format of an encapsulating security payload packet. (10 Marks)  
b. What is Diffie – Hellmann algorithm and mention its attractive features. (06 Marks)  
c. Mention the services of RFC 4301. (04 Marks)

### Module-4

- 7 a. Describe the parts and phases of computer virus. (06 Marks)  
b. Mention the classification of virus by target. (04 Marks)  
c. Describe the generations of antivirus software. (10 Marks)

OR

- 8 a. Describe the typical steps in digital immune system operation for virus protection. (14 Marks)  
b. Describe the requirements for an effective worm countermeasure scheme. (06 Marks)

### Module-5

- 9 a. Explain the techniques that firewalls used. (08 Marks)  
b. What are the limitations of firewalls? (06 Marks)  
c. What are the capabilities of firewalls? (06 Marks)

OR

- 10 a. Explain the following types of firewalls. (14 Marks)  
i) Packet filtering firewall  
ii) Circuit – level proxy firewall.  
b. What are the common characteristics of a bastion host? (06 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.