Hall Ticket Number:

Code No. : 32513

VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD
B.E. (I.T.) III Year II-Semester Main Examinations, May-2017
Computer Networks

Time: **3** hours
Max. Marks: **70**

Note: Answer ALL questions in Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

1. Mention different types of network topologies available.

2. What is Out of Band Data?

3. Differentiate between adaptive and non-adaptive routing algorithms.

4. Briefly explain about load shedding mechanism.

5. If a company require 60 hosts, then what is the best possible subnet mask?

6. Differentiate between IPv4 and IPv6.

7. Mention the types of HTTP request methods.

8. DNS uses UDP instead of TCP. If a DNS packet is lost, there is no automatic recovery. Does this cause a problem, and if so, how is it solved?

9. How public key algorithms function?

10. What are Digital signatures?

Part-B (5 × 10 = 50 Marks)

11. a) Explain the architecture of TCP/IP reference model. [6]

    b) Demonstrate about Daemon process and Internet super server. [4]

12. a) Explain Link state routing algorithm with a suitable example. [6]

    b) Write about congestion prevention policies. [4]

13. a) Discuss about Boarder Gateway Routing protocol. [5]

    b) Write about TCP connection management in detail. [5]

14. a) Explain about the architecture of e-mail system. [5]

    b) Give an overview of how DNS works. [5]

15. a) Explain about key management in public key cryptography. [5]

    b) Draw the general structure of DES and explain the encryption and decryption process. [5]

16. a) Explain about various socket options? [5]

    b) Explain in detail the general principles of congestion control. [5]

17. Answer any *two* of the following:

    a) Mobile IP [5]

    b) Wireless web [5]

    c) Email Security. [5]

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