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P. Pages : 2

Time : Three Hours

**NRT/KS/19/3495**

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Due credit will be given to neatness and adequate dimensions.
 9. Assume suitable data whenever necessary.
 10. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Enumerate the function of seven layers of ISO – OSI reference model with the help of diagram. **8**

b) Explain IEEE 802.11 standard in brief. **6**

OR

2. a) Explain the following with example **8**

i) Reliability

ii) Delay

iii) Jitter

iv) Throughput

b) Explain about infrared transmission. **6**

3. a) Explain about static and dynamic channel allocation. **6**

b) Explain in detail selective repeat ARQ with its working. **7**

OR

4. a) What is framing? Also explain character stuffing in data link layer. **7**

b) Write short note on 1 – persistence non persistence & P – persistence CSMA protocol. **6**

5. a) What is the principal of optimality for the routing algorithms? How it is used. **6**

b) Explain the methods of choke packets used for congestion control. **7**

OR

6. a) Explain the classification of IP addressing in brief. Also explain the concept of classless addressing. **8**

b) Classify following IP address – **5**

i) 200.2.2.3

ii) 0.0.0.0

iii) 170.40.11.0/24

iv) 223.0.0.0

v) 191.0.1.7

7. a) Explain transport service primitives. 6
- b) Explain the various QOS parameter used in the transport layer. 7

OR

8. a) Explain the packet format of BOOTP in detail. 6
- b) Describe in brief **any two**. 7
- i) Crash recovery
 - ii) Concurrency
 - iii) Multiplexing
9. a) Describe in brief. 13
- i) DNS in the internet
 - ii) FTP and TFTP

OR

10. Write short note on 13
- i) Error control
 - ii) Command processing
 - iii) Transition slate
11. a) Explain SSL architecture in transport layer security. 7
- b) Explain three phases of mobile IP in detail. 7

OR

12. Write a short note **any three**. 14
- i) Security of IP layer IP sec
 - ii) Digital signature
 - iii) Application layer security
 - iv) Real time traffic over internal



~ Walt Disney

