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III/IV B.Tech (Regular\Supplementary) DEGREE EXAMINATION

November, 2019

Information Technology

Fifth Semester

Data Communication & Computer Networks

Time: Three Hours

Maximum: 60 Marks

Answer Question No.1 compulsorily.

(1X12 = 12 Marks)

Answer ONE question from each unit.

(4X12=48 Marks)

(1X12=12 Marks)

1. Answer all questions

- Define data communication.
- What is topology?
- Define burst errors.
- What is optimality principle?
- Define load shedding.
- What is jitter?
- Define socket.
- Define multiplexing.
- Differentiate TCP and UDP.
- What is the purpose of DNS?
- List out application layer protocols.
- What are the advantages of MIME protocol?

UNIT I

2. a) Explain five components of a data communication model with a diagram.

6M

b) Describe TCP/IP protocol architecture.

6M

(OR)

3. a) List out and explain various types of topologies.

6M

b) Differentiate Asynchronous and synchronous transmission

6M

UNIT II

4. a) How virtual circuit subnet is different from datagram subnet? Explain.

6M

b) Briefly explain flooding routing algorithm

6M

(OR)

5. a) How to avoid congestion in datagram subnet? Explain.

6M

b) Write a short note on IP classes.

6M

UNIT III

6. a) List out various Berkeley socket primitives for TCP

6M

b) Derive the steps for Remote Procedure Call (RPC) with neat diagram

6M

(OR)

7. a) Briefly explain TCP segment header format with a neat diagram

6M

b) Narrate TCP connection establishment

6M

UNIT IV

8. a) Explain Domain resource records.

6M

b) What are the roles of the user agent? Explain all.

6M

(OR)

9. a) Narrate architecture of a Web with a neat diagram.

6M

b) List out the built-in HTTP request methods.

6M



**III / IV B.Tech(Supplementary) DEGREE EXAMINATION
Information Technology
Computer Networks**

Time : 3 Hours
marks

Maximum: 60

Answer Question No.1 compulsorily. (12 x 1 = 12)

Answer One Question from each unit. (4 x 12 = 48)

1. Answer the questions

- (a) Define data communication.
- (b) What is topology?
- (c) Define burst errors.
- (d) What is optimality principle?
- (e) Define load shedding.
- (f) What is jitter?
- (g) Define socket.
- (h) Define multiplexing.
- (i) Differentiate TCP and UDP.
- (j) What is the purpose of DNS?
- (k) List out application layer protocols.
- (l) What are the advantages of MIME protocol.

UNIT- I

2. (a) Explain five components of a data communication model with a diagram.

(6M)

(b) Describe TCP/IP protocol architecture.

(6M)

(OR)

3. (a) list out and explain various types of topologies.

(6M)

(b) Differentiate Asynchronous and synchronous transmission.

(6M)

UNIT-II

4. (a) How virtual circuit subnet is different from datagram subnet? Explain. (6M)

(b) Briefly explain flooding routing algorithm.

(6M)

(OR)

5. (a) How to avoid congestion in datagram subnet? Explain.

(6M)

- (b) Write a short note IP classes.

(6M)

UNIT-III

- 6 (a) List out various Berkeley socket primitives for TCP.

(4M)

- (b). Derive the steps for Remote Procedure Call (RPC) with neat diagram.

(8M)

(OR)

- 7 (a) Briefly explain TCP segment header format with a neat diagram

(8M)

- (b) Narrate TCP connection establishment.

(4M)

UNIT-IV

- 8 (a) Explain Domain resource records.

(6M)

- (b).What are the roles of the user agent? Explain all.

(6M)

(OR)

- (a). Narrate architecture of a Web with a neat diagram.

(8M)

- (b). list out the built-in HTTP request methods.

(4M)