14IT505

Hall Ticket Number:

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)

1. Answer all questions (1X12=12 Marks)
   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 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

SET-1

14IT505

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

Time : 3 Hours **Maximum: 60 marks**

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)