GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

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Name of Examination : **Winter 2020** - (Preview)

Course Code & Course Name : **CO301U - Computer Networks**

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Maximum Marks : **60**   Duration : **3 Hrs**

Edit   Print   View Answer Key   Close   **Answer Key Submission Type:** Marking scheme with model answers and solutions of numerical

Instructions:

1. *All questions are compulsory.*
2. *Illustrate your answer with suitable figures/sketches wherever necessary.*
3. *Assume suitable additional data; if required.*
4. *Use of logarithmic table, drawing instruments and non programmable calculators is allowed.*
5. *Figures to the right indicate full marks.*

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1)   Solve all

a)   Define the type of the following destination addresses: [6]
   a. 4A:30:10:21:1O:1A.
   b. 47:20:1B:2E:08:EE.
   c. FF:FF:FF:FF:FF:FF.

b)   Explain IEEE 802.11 addressing mechanism.   [6]

2)   Solve all

a)   List the Addresses in TCP/IP. Explain physical address with example.   [6]

b)   Explain four way handshaking methods to terminate a connection in TCP   [6]

3)   Solve any two

a)   Find the error, if any, in the following IPv4 addresses.   [6]
   a. 111.56.045.78
   b. 221.34.7.8.20
   c. 75.45.301.14
   d. 11100010.23.14.67
   e.22.34.7.8.6.
   f.152.32.201.11110000

b)   Explain IPV4 datagram.   [6]

c)   Explain Transition from ipv4 to ipv6. Explain any two transition strategies in detail   [6]

4)   Solve any two

a)   Draw and explain user datagram protocol format in detail and list the uses of the UDP protocol.   [6]

b)   The following is a dump of a TCP header in hexadecimal format.   [6]
   05320017 00000001 00000000 5OO207FF 00000000
   a. What is the source port number?
   b. What is the destination port number?
   c. What the sequence number?
   d. What is the acknowledgment number?
   e. What is the length of the header?
   f. What is the type of the segment?

c)   Explain TCP services   [6]

5)   Solve any two

a)   Explain following field of DNS.   [6]
   a) Hierarchy of Name Servers
   b) Zone
   c) Primary and Secondary Servers.

b)   Explain steps of RSA algorithm with example.   [6]

c)   Write short note on
   i). File transfer protocol   [3]
   ii). SMTP   [3]

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