

Total No. of Questions : 10]

SEAT No. :

P3640

[5560]-596

[Total No. of Pages : 2

T.E. (Information Technology)
COMPUTER NETWORK TECHNOLOGY
(2015 Pattern) (Semester - II) (314450)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume Suitable data if necessary.

- Q1)** a) For a given class C network 195.188.65.0. Design the equal subnets in such a way that each subnet has at least 50 nodes. [6]
b) Explain the three way handshake algorithm for TCP connection establishment. [4]

OR

- Q2)** a) What is DNS Server? Explain lookup methods used by the DNS to resolve the remote names. [6]
b) Explain Network Layer services with example. [4]

- Q3)** a) How Nagle algorithm helps in TCP transmission policy? Explain the Clark's solution to overcome the silly window syndrome. [6]
b) What is MIME? Discuss its role in SMTP? [4]

OR

- Q4)** a) Write short note on POP3 and IMAP. [6]
b) Explain TCP header format. [4]

- Q5)** a) Explain the issues in designing a routing protocol for Ad-hoc Wireless Network. [8]
b) Explain the basic architecture of WLAN and various components in it. [8]

OR

- Q6)** a) What are the functions of the security sub layer in 802.16? [8]
b) Describe Bluetooth protocol stack with suitable diagram. [8]

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- Q7)** a) Explain operations of Split TCP. Explain its advantage and disadvantages. [8]
b) Explain AODV & DSDV in details. [8]

OR

- Q8)** a) What is Adhoc Network? Explain challenges in designing Routing Protocol for Adhoc wireless networks. [8]
b) Explain MACAW protocol in details. [8]

- Q9)** a) Explain the architecture of SDN in details. [10]
b) Write a short note on
i) Network Function Virtualization
ii) Network Neutrality. [8]

OR

- Q10)** a) Explain IOT architecture in detail. What are the issues and challenges in Internet of Things? [10]
b) Compare LEO, MEO and GEO Satellite. [8]

