**P1343**

## [4858] - 1087
## T.E. (Computer Engineering)
## COMPUTER NETWORKS
## (2012 Pattern)

*Time : 3 Hours]*                                                                  *[Max. Marks : 70*

***Instructions to the candidates:***

*1)*   *Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
*2)*   *Figures to the right indicate full marks.*
*3)*   *Neat diagrams must be drawn wherever necessary.*
*4)*   *Assume suitable data, if necessary.*

*Q1)* a)   What is DNS? Explain in brief hierarchical structure of DNS.          **[6]**

b)   Compare link state routing and distance vector routing.               **[6]**

c)   Explain token bucket and leaky bucket algorithm with diagram.         **[8]**

OR

*Q2)* a)   Explain POP3 and IMAP4.                                            **[6]**

b)   Explain socket programming with its primitives.                       **[6]**

c)   Draw the packet header format of OSPF and explain in detail.          **[8]**

*Q3)* a)   Compare and explain 802.11a, 802.11b and 802.11g wireless standards with respect to                                                          **[8]**

i)   Bandwidth.

ii)   Frequency.

iii)   Signal to noise ratio.

iv)   Range.

b)   Draw and explain WAP architecture.                                    **[8]**

OR

*P.T.O.*

*Q4)* a) What is WAE (Wireless Application Environment)? Explain in details.

**[8]**

b) Write a note on: **[8]**

    i) Wireless LAN.

    ii) WML Script.


*Q5)* a) Explain the advantage of DTN over IP network with example. **[8]**

b) Draw and explain V1OIP network architecture. **[8]**

**OR**

*Q6)* a) What is Vehicular network? What are the challenges and applications of vehicular network? **[8]**

b) What is DTN? Explain different layers of DTN. **[8]**


*Q7)* Write a note on (any 3): **[18]**

a) Components of optical network.

b) ATM cell format.

c) GMPLS.

d) SDN.

**OR**

*Q8)* a) What is Virtualization? List advantages and disadvantages of Virtualization. **[6]**

b) Explain how packet switching is different in optical network than Ethernet. **[6]**

c) Explain SONET/SDH. **[6]**


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