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SEAT No. :

5229

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[6006]-48

**F.Y. M.C.A (Engineering)**  
**COMPUTER NETWORK**  
**(2020 Pattern) (Semester-II) (310913)**

[Max. Marks : 70

Time : 2½ Hours]

Instructions to the candidates:

- 1) Neat diagrams must be drawn wherever necessary.
- 2) Figures to the right side indicate full marks.
- 3) Assume suitable data if necessary.

Q1) a) Explain LAN, MAN, WAN.

[6]✓

b) Describe Frequency Hopping and Hierarchical topology.

[6]✓

OR

Q2) a) Explain with diagram TCP IP model.

[6]

b) Explain bridges, switches and routers in detail with diagram.

[6]

Q3) a) Discuss Error Control and Flow Control in detail.

[6]✓

b) Explain stop and wait protocol with suitable example.

[6]✓

OR

Q4) a) Explain sliding window protocol with suitable example.

[6]

b) Write short note on PPP and HDLC.

[6]

Q5) a) Explain Pure and Slotted ALOHA.

[6]

b) Describe about CSMA/CD in detail.

[5]

OR

Q6) a) Write short note on Fast Ethernet and Gigabit Ethernet.

[6]

b) Explain static and dynamic channel allocation.

[5]

Q7) a) Differentiate between IPv4 and IPv6 addressing.

[6]

b) Explain Mobile IP and routing in MANET.

[6]

OR

P.T.O.

- Q8) a) Explain Distance Vector and Link state routing protocol. [6]  
b) Write short note on BGP and NAT. [6]

- Q9) a) Describe Transport Layer Services. [6]  
b) Explain RTP and SCTP. [6]

OR

- Q10) a) Discuss in detail about TCP Congestion Control. [6] ✓  
b) Differentiate between TCP and UDP. [6] ✓

- Q11) a) Explain DNS with suitable example. [6]  
b) Explain SNMP in detail. [5]

OR

- Q12) a) Write short note on SMTP and POP3 protocol. [6] ✓  
b) Explain DHCP in detail. [5] ✓

