17429

16172

3 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions : *(1)* ***All*** *questions are* ***compulsory****.*
(2) Answer ***each*** *next main question on a* ***new*** *page.*
(3) Illustrate your answers with neat sketches ***wherever*** *necessary.*
(4) Figures to the ***right*** *indicate* ***full*** *marks.*
(5) Assume suitable data, if ***necessary****.*

Marks

1. Attempt **any ten :** **(20)**

a) Define 'packet' in concern with computer communication. **2**

b) Give any two applications of microwave communication. **2**

c) Give the problem faced in ring topology. **2**

d) State whether the bus is active or passive network. Justify your answer. **2**

e) List two DHCP protocols. **2**

f) List advantages of computer network. **2**

g) State the names of two sublayers of data link layer. **2**

h) What are different transmission media ? **2**

i) State any four topologies. **2**

j) List any two characteristics of LAN. **2**

k) Why the network cable is twisted ? **2**

l) State any 2 advantages of co-axial cable. **2**

m) Define protocol. **2**

n) List any two services provided by PPP. **2**

2. Attempt **any four** : **(16)**

a) Explain classification of computer network by their geography. **4**

b) State merits and demerits of client server network. **4**

c) Compare Hub, Switch and Bridge. **4**

d) With the help of neat diagram, describe working of fiber optic cable. **4**

e) State the functions of data link layer. **4**

f) Explain subnet masking. **4**

P.T.O.

Marks

3. Attempt **any four** : **(16)**

a) Compare Client – Server and peer to peer network. **4**

b) Explain tree topology with neat diagram. **4**

c) Enlist any four communication bands for unguided media with their frequency range. **4**

d) With neat diagram explain the ESS architecture of IEEE 802.11. **4**

e) Explain OSI reference model with its layered architecture. **4**

f) State different IP address classes. Explain any one in brief. **4**

4. Attempt **any four** : **(16)**

a) Draw and explain Wide Area Network. **4**

b) What is transceiver ? State the advantages and disadvantages of it. **4**

c) Draw a sketch of shielded twisted pair cable and describe any two characteristics. **4**

d) Describe data encapsulation in OSI model. **4**

e) Explain horizontal and vertical communication. **4**

f) Explain the principle of FTP. **4**

5. Attempt **any four** : **(16)**

a) With neat diagram explain Gateways. **4**

b) With the help of diagram, explain satellite communication. **4**

c) State token passing. Compare token passing with CSMA/CD. **4**

d) Explain the functions of presentation layer and network layer. **4**

e) Compare IPv4 and IPv6. **4**

f) With neat diagram explain DNS in Internet. **4**

6. Attempt **any two** : **(16)**

a) With neat diagram, explain client server network along with its advantages and disadvantages. **8**

b) With the help of neat diagram, describe the working of Routers. Also enlist types of routers. **8**

c) Describe TCP/IP model with suitable diagram. **8**
