

*This question paper contains 2 printed pages.*

1887

Your Roll No. ....

**B.Sc. (G) / II / NS**

**E**

**COMPUTER SCIENCE— Paper IV**

**(Computer Networks and Internet)**

**(Admissions of 1999 and onwards)**

**Time : 3 hours**

**Maximum Marks : 38**

*(Write your Roll No. on the top immediately  
on receipt of this question paper.)*

*Attempt all questions.*

*Draw diagrams wherever necessary.*

1. (a) What is the function of 'ping' program? What is it used for? 2
- (b) What are advantages/disadvantages of optical fiber over coaxial cable when used as the transmission medium in the computer networks? 2
- (c) Differentiate between baseband and broadband technologies. 3
2. (a) Explain CSMA/CD mechanism used in LAN. 3
- (b) Explain how Fiber Distributed Data Interconnect (FDDI) is advantageous over IBM Token Ring network. 3

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- (c) Name and explain *three* types of the web documents. 3
3. (a) What is a bridge? How does a bridged network span long distances? 3
- (b) Which layers of OSI reference model perform the following functions:—
- (i) Routing of packets
- (ii) Framing of bits and sending acknowledgements for frames. 2
4. (a) What is IP datagram? Is it connectionless or connection-oriented service? 3
- (b) Explain the three-way handshake used by TCP to guarantee a reliable termination of the established connection. 3
- (c) What is client-server paradigm? What are the characteristics of servers and clients? 3
5. (a) What is Network File System (NFS)? How is NFS used in a client server model? 3
- (b) What is the difference between distributed and non-distributed hypermedia? 2
- (c) What is Common Gateway Interface (CGI)? Is it used by the client or server (justify your answer by explaining how it is used)? 3