

Reg. No.

B.Tech. DEGREE EXAMINATION, NOVEMBER 2019
Fourth Semester

CS1006 – COMPUTER NETWORKS

(For the candidates admitted during the academic year 2013 – 2014 and 2014 – 2015)

Note:

- (i) Part - A should be answered in OMR sheet within first 45 minutes and OMR sheet should be handed over to hall invigilator at the end of 45th minute.
(ii) Part - B and Part - C should be answered in answer booklet.

Max. Marks: 100

Time: Three Hours

PART – A (20 × 1 = 20 Marks)

Answer ALL Questions

1. A group of computers and other devices connected together is called _____.
(A) Networking (B) Data communication
(C) Bridge communication (D) Circuits
2. _____ layer do not belong to OSI model.
(A) Physical (B) Datalink
(C) Internet (D) Transport
3. A virtual local area network is configured by
(A) Hardware (B) Wires
(C) Software (D) IP address
4. Communication between a computer and a keyboard involves a _____ transmission.
(A) Automatic (B) Full duplex
(C) Simplex (D) Half duplex
5. _____ is a data link protocol
(A) Simulation (B) Point-to-point
(C) IP (D) IPv4
6. A pattern of 0's and 1's can be represented as
(A) Cyclic code (B) Modulo-2
(C) Polynomial (D) Coefficient
7. A Bluetooth network is called _____.
(A) Piconet (B) Scatternet
(C) Bluenet (D) Telnet
8. _____ regenerates a signal, connects segments of LAN and has no filtering capability
(A) Repeater (B) Bridge
(C) Router (D) Switches
9. Circuit switching takes place at _____ layer.
(A) Data link (B) Physical
(C) Network (D) Transport

10. _____ is a dynamic mapping protocol in which a physical address is found for a given logical address.
 (A) ARP (B) RARP
 (C) ICMP (D) IGMP
11. _____ is an interdomain routing protocol using path vector routing
 (A) BGP (B) OSPF
 (C) RIP (D) MOSPF
12. _____ is the combination of IP address and port number.
 (A) Socket address (B) Transport address
 (C) Network address (D) Logical address
13. The subnet mask 255.255.0.0 belongs to class _____.
 (A) A (B) B
 (C) C (D) D
14. MTU refers to _____.
 (A) Minimum transfer unit (B) Message transfer unit
 (C) Material transfer unit (D) Maximum transfer unit
15. _____ is the reliable protocol.
 (A) IP (B) UDP
 (C) TCP (D) SCTP
16. The communication in TCP is _____.
 (A) Simplex (B) Half-duplex
 (C) Full-duplex (D) Duplex
17. In URL, the _____ is the client server program used to retrieve the document
 (A) Path (B) Protocol
 (C) Host (D) DNS
18. A "SNMP" agent can send _____ messages.
 (A) Response (B) Get request
 (C) Set request (D) Reply request
19. PoP3 protocol is responsible for _____.
 (A) Sending text message (B) Sending video
 (C) Sending audio (D) Queuing the message
20. Sending a file from PC's primary memory to another computer is
 (A) Uploading (B) Downloading
 (C) Logging on (D) Hanging

PART - B (5 × 4 = 20 Marks)
 Answer ANY FIVE Questions

21. List the type of topologies with diagram.
22. With neat diagram, explain data communication components.

23. Discuss UDP header format with suitable diagram.
24. State and explain sender side algorithm for stop and wait ARQ.
25. How will you avoid congestion in networking?
26. Write briefly about cryptography.
27. Classify various DNS used in the internet.

PART - C (5 × 12 = 60 Marks)
 Answer ALL Questions

28. a. Explain about various layers in ISO/OSI reference model layers with suitable sketch.

(OR)

- b. Explain IEEE 802.11 MAC sublayer standard with necessary diagrams.

29. a. Explain hamming code procedure to detect errors with suitable example.

(OR)

- b. Discuss about the following methods
 (i) CSMA/CD
 (ii) CSMA/CA

30. a. Categorize and explain various IPv4 addresses with proper notations.

(OR)

- b. Explain about distance vector routing with neat diagram.

31. a. Discuss about transmission control protocol with following key elements

- (i) TCP services
 (ii) TCP features
 (iii) TCP connection

(OR)

- b. List out the services and features of SCTP. And also explain the comparison between TCP and SCTP.

32. a. Write short notes on

- (i) TELNET
 (ii) MIME
 (iii) SMTP

(OR)

- b. Discuss about asymmetric key cryptographic algorithms.
