

२६५०५४

BCA-201

B.C.A. Second Year Examination, 2013

B.C.A.

PAPER-I

COMPUTER COMMUNICATION AND NETWORKING

Maximum Marks : 100

SECTION-A

खण्ड-अ

Marks : 50

Time : 1½ Hours

Candidates are required to first answer the Section-A (Multiple Choice Questions) by marking correct choice on OMR Sheet in prescribed time. All questions are compulsory and carry equal marks. There is no negative marking for wrong answers. सर्वप्रथम खण्ड अ के सभी वस्तुनिष्ठ प्रश्नों के उत्तर ओ. एम. आर. शीट में परीक्षार्थी को निश्चित समय में देने हैं। सभी प्रश्न अनिवार्य एवं समान अंक के हैं गलत उत्तर का ऋणात्मक मूल्यांकन नहीं किया जायेगा।

SECTION-B

खण्ड-ब

Marks : 50

Time : 1½ Hours

After depositing O.M.R. Sheet of Section-A with invigilator, the candidate are required to answer one question from each unit (each question in 250 words) in a separate answer-book provided to them. All questions carry equal marks. Attempt one question from each unit.

खण्ड अ की ओ. एम. आर. शीट पर्यवेक्षक को जमा कराने के पश्चात् परीक्षार्थी खण्ड ब के प्रत्येक इकाई से एक प्रश्न का उत्तर दी गई उत्तरपुस्तिका में देंगे। प्रत्येक प्रश्न का उत्तर लगभग 250 शब्दों में दिया जाना है एवं सभी प्रश्नों के अंक समान हैं। प्रत्येक युनिट से एक प्रश्न करना अनिवार्य है।

SECTION-A

UNIT-I

1. Identify and Discuss the following:
- Write short answers for the following:
- (i) Write short answer for the following:
- (ii) Write short answer for the following:
2. Explain the following:
- Write short answers for the following:
3. Describe the following:
- Explain the following:
- (i) Explain the following:
- (ii) Explain the following:
4. Explain the following:
- Describe the following:
5. Explain the following:
- Explain the following:
- (i) Explain the following:
- (ii) Explain the following:
1. A set of rules that does the data communication is known as :
- (A) Protocol (B) Model
- (C) Services (D) Provider
2. Identify the odd term among the following :
- (A) Coaxial cable (B) Twisted pair wire
- (C) Microwaves (D) Optical Fibre
3. The transfer of data from a CPU to peripheral devices of a computer is achieved through :
- (A) Modems (B) Interfaces
- (C) Computer parts (D) All of these
4. Which of the following performs modulation and demodulation :
- (A) Satellite (B) Modem
- (C) Fiber optics (D) All of these
5. Which of the following medium access control technique is used for bus/tree :
- (A) Token Ring (B) Token Bus
- (C) CSMA (D) MAC
6. Which of the following is not a transmission media :
- (A) Satellite (B) Microwave
- (C) Modem (D) Fiber optics
7. What is the name of the network topology in which there are bidirectional links between each possible nodes :
- (A) Ring (B) Mesh
- (C) Tree (D) Star
8. The data communication support should include, but is not restricted to :
- (A) File transfer and transaction processing (B) File and database access
- (C) Terminal support, e-mail (D) All of these

9. Which of the following is not a layer of OSI model :
- (A) Physical (B) Secure
(C) Presentation (D) Network
10. When data is sent during set time periods, then the transmission mode is :
- (A) Synchronous (B) Asynchronous
(C) Serial (D) Parallel

UNIT-II

11. Example of Data Link Control protocol ?
- (A) SDLC (B) HDLC
(C) BISNYC (D) All of these
12. The communication mode that supports data in both directions at the same time is :
- (A) Simplex (B) Half duplex
(C) Full duplex (D) Multiplex
13. Which of the following communication lines is best suited to interactive processing applications :
- (A) Narrowband channels (B) Simplex lines
(C) Full duplex lines (D) Mixed band lines
14. ASK, PSK & FSK are example of encoding.
- (A) Digital to Digital (B) Digital to Analog
(C) Analog to Analog (D) Analog to Digital
15. The communication mode that support two way traffic but only one direction at a time is :
- (A) Simplex (B) Half duplex
(C) Full duplex (D) Multiplex
16. NRZ is :
- (A) Non Return to Zero (B) Non Reliable to Zero
(C) Non Reachable to Zero (D) No Refresh Zero
17. If the ASCII G is sent and the character D is received, type of error is :
- (A) Single bit (B) Multiple bit
(C) Burst (D) Recoverable

1. Identif
Discu

Write :

(i) V
(ii) V

2. Explai

Write

3. Descri

Expla

(i)
(ii)

4. Expla

Descri

5. Expla

Expla

(i)
(ii)

BCA-201

18. Which of the following is not a error control method :

- (A) Go back-N ARQ (B) Stop and Wait ARQ
(C) Stop and Go ARQ (D) Selective-Reject ARQ

19. In CRC, R stands for :

- (A) Redundancy (B) Reconverable
(C) Reliable (D) Reduced

20. Demodulation is the process of :

- (A) Converting analog to digital signals (B) Converting digital to analog signal
(C) Performing data description
(D) Multiplexing various signals into one high speed line signals

UNIT-III

21. Which of the following types of channels moves data relatively slowly :

- (A) Wideband channel (B) Voiceband channel
(C) narrow band channel (D) Broadband channel

22. Which of the following condition is used to transmit two packets over a medium at the same time :

- (A) Contention (B) Collision
(C) Synchronous (D) Asynchronous

23. In which topology data packet is removed by the source destination :

- (A) Ring (B) Bus
(C) Star (D) None of these

24. Which of the following takes a fixed logical path through network in packet switching :

- (A) Datagram (B) Virtual circuit
(C) LAN topology (D) None

25. Data transfer using telephone system is :

- (A) Time division multiplexing (B) Space division multiplexing
(C) Frequency division multiplexing (D) None

BCA-201/6300

26. In Circuit switching :
- (A) Data is stored at intermediate nodes
 - (B) Transmission path is set before data transfer
 - (C) Dedicated communication link is not required
 - (D) All of these
27. The maximum length of a data packet in a packet switching method is :
- (A) 1 byte
 - (B) 128-4096 bytes
 - (C) 10 MB
 - (D) None
28. How many OSI layers are converted to X.25 :
- (A) 2
 - (B) 3
 - (C) 7
 - (D) 6
29. Which of the following device is used with X.25 network to provide service to Asynchronous terminals :
- (A) Repeater
 - (B) Bridges
 - (C) Gateway
 - (D) Packet Assemble/disassemble
30. Node to node links are multiplexed using :
- (A) FDM
 - (B) TDM
 - (C) Both a & b
 - (D) None

UNIT-IV

31. In ATM, T stands for :
- (A) Transmission
 - (B) Topology
 - (C) Transfer
 - (D) Telecommunication
32. Wireless LAN uses :
- (A) Copper wires
 - (B) Radio waves
 - (C) Optical fibre
 - (D) None
33. FDDI stand for :
- (A) Frame dual data interface
 - (B) Fiber distributed dual interface
 - (C) Fiber dual data interprocess
 - (D) Fiber distributed data interface

1. Identify
Discuss

write sh

(i) W

(ii) W

2. Explain

Write sh

3. Describe

Explain :

(i) Tim

(ii) X.25

4. Explain C

Describe c

5. Explain the

Explain :

(i) UDP

(ii) HTTP

BCA-201/6300

34. Devices on one network can communicate with devices on another network via :

- (A) File server
- (B) Utility server
- (C) Printer server
- (D) Gateway

35. FDDI is a network.

- (A) Ring
- (B) Star
- (C) Mesh
- (D) Bus based

36. Which of the following is an advantage to using fiber optics data transmission :

- (A) Fast data transmission rate
- (B) Low noise level
- (C) Both a and b
- (D) None of these

37. Which protocol is used in Ethernet :

- (A) Open system
- (B) CSMA/CD
- (C) Token ring
- (D) None

38. How many tokens can exist on a token ring network at the same time :

- (A) As many as it takes
- (B) 1
- (C) 2
- (D) One for each workstation

39. Frames from one LAN can be transmitted to another LAN via the device :

- (A) Router
- (B) Bridge
- (C) Repeater
- (D) Modem

40. Data transfer rate in modems is measured in :

- (A) Bits per minute
- (B) Bits per second
- (C) Band width
- (D) None

UNIT-V

41. TCP is :

- (A) Operates at the data link layer
- (B) Connection oriented and unreliable
- (C) Connection oriented and reliable
- (D) Connectionless and unreliable

42. What is the standard protocol for network management feature :

- (A) SNA
- (B) FTP
- (C) SNMP
- (D) SMS

BCA-201/6300

43. What is the port number of HTTP :
- (A) 99 (B) 90
(C) 80 (D) 23
44. Sending a file from your personal computer's memory to another computer is called :
- (A) Uploading (B) Downloading
(C) Logging on (D) Hang on
45. Which of the following, specifies the network address and host address of the computer :
- (A) The IP address (B) The TCP address
(C) The subnet mask (D) The default gateway
46. Which of the following file retrieval methods use hypermedia :
- (A) WAIS (B) Archie
(C) HTTP (D) FTP
47. The standard suit of protocols used by the internet, intranets and some other network :
- (A) TCP/IP (B) Protocol
(C) Open system (D) Inter network processor
48. MIME stands for :
- (A) Multiprocess Internet Management Extensions
(B) Multipurpose Internet Management Extensions
(C) Multipurpose Internet Mail Extensions
(D) Multiprocess Internet Mail Extensions
49. Which is faster TCP or UDP :
- (A) TCP (B) UDP
(C) Both are same (D) Neither
50. Which IP address class has few hosts per network :
- (A) D (B) C
(C) B (D) A

SECTION-B

UNIT-I

1. Identify the basic elements of communication system. What is communication protocol. Discuss its requirements in Network.

OR

Write short note on :

- (i) Wireless transmission
- (ii) Wired transmission

UNIT-II

2. Explain Data Encoding in detail.

OR

Write short note on Data Link control protocols.

UNIT-III

3. Describe the methods used to switch data in communication networks.

OR

Explain :

- (i) Time division multiplexing
- (ii) X.25 Protocol

UNIT-IV

4. Explain CSMA/CD and its protocol.

OR

Describe commonly used LAN devices.

UNIT-V

5. Explain the basic operations performed by TCP.

OR

Explain :

- (i) UDP
- (ii) HTTP