

II Semester M.C.A. Examination, June/July 2018
(CBCS)

COMPUTER SCIENCE
MCA203T : Computer Networks

Time : 3 Hours

Max. Marks : 70

Instruction *Answer any five questions from Section – A and any four questions from Section – B.*

SECTION – A

Answer any five questions. Each carries six marks. (5×6=30)

1. Classify Transmission Media. Explain the working of Twisted pair cables.
2. What is need for Asynchronous communication ? Explain RS-232.
3. Define multiplexing. Differentiate synchronous TDM and Statistical TDM.
4. What is the advantage of Byte stuffing ? Explain types of Data stuffing.
5. Explain ISDN and HDSL technology.
6. a) Explain Network Interface Hardware.
b) Discuss Network Performance Characteristics.
7. What is the purpose of Physical addressing ? Discuss formats of physical addressing.
8. Write a short note on :
a) UDP
b) Token Rings.

SECTION – B

Answer any four questions. Each carries ten marks. (4×10=40)

9. Explain CSMA/CD and CSMA/CA mechanisms. (5+5)
10. a) What is purpose of bridges ? Explain types of bridges and its working. 6
b) Explain CIDR Notation. 4



11. a) Explain ADSL technology. 4
b) Discuss the functioning of OSI-ISO layers. 6
12. a) What is IPV6 Addressing and explain IPV6 Addressing ? 7
b) Explain Virtual Private Network 3
- 130 a) What is Routing ? Explain Distance Vector Routing. 6
b) Explain TCP Headers and Services Provided by TCP 4
14. Write short notes on :
- 1) Name servers
 - 2) MIME
 - 3) Like-state routing.
- (4+3+3)



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Instruction : Answer **any five** questions from Section – A and **any four** questions from Section – B.

SECTION – A

Answer **any five** questions. **Each** carries **six** marks. (5×6=30)

1. Explain the growth and probing in building the Internet applications.
2. What is guided media ? Explain its types.
3. How MODEM is used for modulation and demodulation ?
4. Differentiate frequency division and time division multiplexing.
5. Explain how SONET works in synchronous communication.
6. What is routing ? Explain link state routing.
7. Write a short-note on :
a) Original classes of IP address b) ICMP message transport
8. What is framing ? How bit stuffing and character count helps in framing.

SECTION – B

Answer **any four** questions. **Each** carries **ten** marks. (4×10=40)

9. a) How LAN uses addresses to format the physical address ?
b) What is three-way handshaking in TCP ?
10. a) What is switching ? Explain the advantages of store and forward data.
b) Explain TCP header.
11. Discuss about OSI reference model.
12. a) Write a frame format of IEEE 802.5 format.
b) What is the difference between TCP and UDP ?
13. Explain electronic mail representation and transfer of data using dialup connections and POP.
14. Write a short note on : (2×5=10)
a) Virtual network b) DSL technology



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II Semester M.C.A. Examination, June 2016
(CBCS)

COMPUTER SCIENCE

MCA – 203T : Computer Networks

Time : 3 Hours

Max. Marks : 70

- Instructions :** 1) Part – A : Answer **any five** questions.
2) Part – B : Answer **any four** questions.

PART – A

Answer **any five** of the following. **Each** question carries **6** marks. **(5×6=30)**

1. What is multiplexing ? Explain the different types in brief.
2. What is asynchronous communication ? Explain the different types.
3. Explain briefly the different LAN technologies.
4. Differentiate between broadcasting and multicasting.
5. What is switching ? Explain.
6. What is WAN ? Explain in brief how a WAN can be formed using packet switches.
7. Differentiate private networks and public networks.
8. Explain the purpose of each layer in the TCP/IP reference model.

PART – B

Answer **any four** of the following. **Each** question carries **10** marks. **(4×10=40)**

9. What are transmission media ? Explain the different types used in modern network systems.
10. Explain self healing token passing networks.
11. Explain the different wiring scheme with respect to ethernet network technology.
12. Explain the different mechanisms used to extend a LAN over long distances.
13. What is distributed route computation ? Explain distance vector routing algorithm.
14. Write short notes on (a) VOIP (b) Internet routing. **(5×2=10)**



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**II Semester M.C.A. Examination, June 2015
(CBCS)
MCA-203T : COMPUTER NETWORKS**

Time : 3 Hours

Max. Marks : 70

PART – A

Note : Answer **any five**. Each question carries **6** marks.

(5×6 = 30)

1. What are ICMP ? With an example discuss “ping” and “traceroute” commands.
2. With neat diagram, discuss working of coaxial cables, and optical fiber cables.
3. How do one detect transmission error ? With an example explain Cyclic Redundancy Check (CRC) technique.
4. Discuss the following LAN technologies :
Ring, Bus, star and FDDI.
5. What are repeaters and bridges used for ? Explain the advantages and disadvantages.
6. What is Address Resolution Mechanism ? Explain Address Resolution Protocol (ARP).
7. What are domain name hierarchy ? Discuss DNS.
8. Write the structure of html. With an example explain the following tags, li, p, br, b1.

P.T.O.

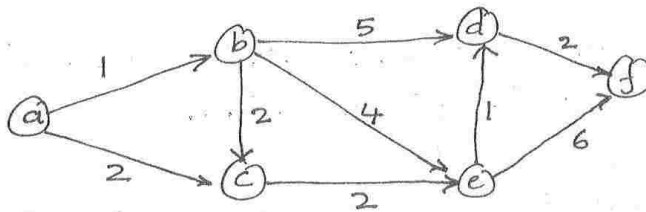


PART – B

Note : Answer **any four**. Each carries **10** marks.

(4×10=40)

9. What is frequency, modulation and wavelength ? What is baud rate and sine wave ? With suitable example discuss frequency modulation, phase modulation, and amplitude modulation.
10. Explain CSMA/CD and CSMA/CA technique.
11. What is a Router ? What are Routing Tables ? Given the following graph, discuss shortest path routing algorithm (from source "a" to destination "f") along with routing table entries.



12. What is Layering of Protocol ? What are the advantages ? Discuss the functioning of OSI-ISO Layers.
13. What is IPv4 addressing format ? Explain class A, class B and class C addressing format. Identify the following address :
192.142.132.11, and 14.132.16.17.
14. What is 3-way handshaking in TCP/IP ? Explain TCP and IP Layers.