(6 pages) **Reg. No. :** .....

Code No. : 9339 **Sub. Code : KCAM 34**

M.C.A. (CBCS) DEGREE EXAMINATION, NOVEMBER 2017.

Third Semester

Computer Applications

DATA COMMUNICATION AND NETWORKS

(For those who joined in July 2016 and afterwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer :

1. Which supports data rate upto 1000 Mbps Gigabyte Ethernet

   (a) CAT 1

   (b) Thinnet

   (c) CAT 5

   (d) CAT 5e

2. TCP/IP is also well known as ————

   (a) OSI model (b) TCP model

   (c) DOD model (d) Network model

3. Which one of the following task is not done by data link layer?

   (a) framing (b) error control

   (c) flow control (d) channel coding

4. When there is no traffic on the ring ———— token circulates continuously until some station grabs it

   (a) 3-byte (b) 5-byte

   (c) 7-byte (d) 9-byte

5. Circuit-switched network is made of a set or switches connected by physical

   (a) links (b) media

   (c) frames (d) nodes

6. Internet Control Message Protocol (ICMP) has header size of

   (a) 12 Bytes (b) 10 Bytes

   (c) 08 Bytes (d) 06 Bytes

7. What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model?

(a) Application

(b) Host-to-Host

(c) Internet

(d) Network Access

8. Which protocol provides the synchronization between media streams?

(a) RTP (b) RTCP

(c) SRTP (d) RTSP

9. If server has information, it satisfies the

(a) Host (b) Server

(c) IP (d) Resolver

10. Which one of the following is a cryptographic protocol used to secure HTTP connection?

(a) Stream Control Transmission Protocol (SCTP)

(b) Transport Layer Security (TSL)

(c) Explicit Congestion Notification (ECN)

(d) Resource Reservation Protocol

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Discuss briefly any two categories of network.

Or

(b) Explain any two layers in protocol architecture.

12. (a) Define DLC. Write a note on flow control.

Or

(b) Discuss briefly Wireless LAN MAC.

13. (a) What are the advantages and disadvantages of packet switching?

Or

(b) What is ICMP? Explain briefly.

14. (a) What is congestion control in TCP? Explain.

Or

(b) What is UDP? Explain in detail.

15. (a) Define DNS. How DNS works and explain it.

Or

(b) Discuss briefly Web security.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain in detail data communication model.

Or

(b) Explain LAN topology in detail.

17. (a) What is the role of Ethernet in computer network?

Or

(b) Explain Bluetooth wireless communication.

18. (a) Explain switching concepts in computer network.

Or

(b) What is IP address? Explain IPV6.

19. (a) What are various steps of connection establishment and connection termination in TCP connection?

Or

(b) Explain in detail TCP.

20. (a) Explain in detail SMTP.

Or

(b) Explain in detail data encryption standards.

———————