KADI SARVA VISHWAVIDYALAYA

B.E SEMESTER VI EXAMINATION (MAY/2015)

SUBJECT CODE : EC-606   SUBJECT NAME :DATA COMMUNICATION & NETWORKING

DATE: 08/05/2015   TIME: 10:30 AM TO 01:30 PM   TOTAL MARKS: 70

Instructions:

1. Answer each section in separate Answer Sheet.
2. Use of scientific Calculator is permitted.
3. All questions are compulsory.
4. Indicate **clearly**, the options you attempted along with its respective question number.
5. Use the last page of main supplementary for rough work.

Section - 1

Q:1   Answer the following Question.

      (A)Write a short note on design issues for the layers ?   05

      (B)Compare the OSI and TCP reference models.   05

      (C)Why does ATM use small, fixed length cells?   05

<div align="center">OR</div>

      (C)Classify transmission media and write about anyone media.   05

Q:2   Answer the following Question.

      (A)Describe PSTN.   05

      (B)(1)TV channels are 6 Mhz wide. How many bits/sec can be sent if four level digital signals are used? Assume a noiseless channel.

      (2) If a binary signal is sent over a 3 KHz channel whose SNR is 20 dB, what is the maximum achievable data rate ?   05

<div align="center">OR</div>

      (A)Write short note on Data Link Layer design issues.   05

      (B)Describe HDLC.   05

Q:3   Answer the following Question.

      (A)Discuss sliding window protocols.   05

      (B)Explain dynamic channel allocation in LANs and MANs.   05

<div align="center">OR</div>

      (A)List out multiple access protocols and describe any one.   05

      (B)(1) Sketch the manchester encoding for the bit stream: 0001110101

      (2) Explain in brife IEEE standard 802.5 : token ring   05

Section - 2

Q:4   Answer the following Question.

      (A)Discuss the leaky bucket algorithm.   05

      (B)Explain internetworking.   05

      (C)Discuss ARP.   05

<div align="center">OR</div>

      (C)Write a short note on TCP.   05

Q:5   Answer the following Question.

      (A)Why does UDP exist ?would it not have been enough to just let processes send raw IP Packets?   05

      (B)Describe rules for system design for better performance.   05

<div align="center">OR</div>

      (A)Describe DMS.   05

      (B)Explaine HTTP.   05

Q:6   Answer the following Question.
     (A) How do you make an image clickable in HTML ? give an example.   05
     (B)Discuss video on demand system.   05

<div align="center">OR</div>

     (A)What is cryptography ? explain public key algorithms.   05
     (B)Discuss security issues and challenges in wireless networks.   05

<div align="center">-----All the Best --------</div>

KADI SARVA VISHWAVIDYALAYA
B.E. SEMESTER 6TH EXAMINATION NOVEMBER 2015

SUBJECT CODE: EC-606
SUBJECT NAME : DATA COMMUNICATION AND NETWORKING
DATE: 06/11/2015   TIME: 10.30 AM To 01.30 PM   TOTAL MARKS: 70

Instructions:
1. Answer Each Section in Separate Answer sheet.
2. Use of Scientific Calculator is permitted.
3. All questions are compulsory.
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5. Use the last page of supplementary for rough work.

SECTION-1

Q.1 (A) Draw and Explain the TCP/IP reference model for network. [05]

(B) What is Network topology? Explain different network topologies with example [05]
and compare them

(C) Explain the terms: LAN, MAN, WAN. [05]

OR

(C) Compare X.25 and Frame Relay. [05]

Q.2 (A) What is the Public Switched Telephone System? Also explain details of PSTN [05]
system.

(B) Differentiate the Pure ALOHA and Slotted ALOHA protocols. [05]

OR

Q.2 (A) Write a short note on Bluetooth. [05]

(B) Explain any two methods for error Framing in details. [05]

Q-3 (A) Explain Comparison between TCP/IP and OSI Reference model. [05]

(B) Explain the guided transmission media in detail. [05]

OR

Q-3 (A) Explain Data Link Layer design issue in details. [05]

(B) Explain Sliding window protocol using GO back to N. [05]

SECTION-2

Q.4 **(A)** What is Quality of Service? What is its significance? List the techniques **[05]**
available to improve Quality of Service and explain any two of them in detail.

(B) Write a Short Note on Ethernet. **[05]**

(C) What are the Elements of transport protocol? Explain them all in short. **[05]**

OR

(C) Write a short Note on UDP (User Datagram Protocol). **[05]**

Q.5 **(A)** Write a Short Note on DNS (Domain Name System). **[05]**

(B) Explain Congestion Control Algorithms in details. **[05]**

OR

Q.5 **(A)** Write a Short Note on WWW (World Wide Web). **[05]**

(B) What is Cryptography? Explain Symmetric Key Algorithms in detail. **[05]**

Q-6 **(A)** Write a Short Note on Public & Private Key. **[05]**

(B) Write a Short Note on ATM. **[05]**

OR

Q-6 **(A)** Explain Security Issues And Challenges in Wireless Networks. **[05]**

(B) Write a Short Note on: (I) FTP (II) HTTP **[05]**

----------ALL THE BEST ---------

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