1.a) How does information get passed from one layer to the next in the Internet model? Explain.
   b) Illustrate how CDMA works in wireless LAN. [7+8]

2.a) What is Cyclic Code? Explain the CRC error detection technique.
   b) Give a detail note on the Random Access protocols. [8+7]

3.a) Explain the functionality of ICMP protocol.
   b) What is the format of IPv4 header? Describe the significance of each field. [7+8]

4.a) Describe why an application developer might choose to run an application over UDP rather than TCP.
   b) Demonstrate three way handshake connection establishment in TCP. [7+8]

5.a) Is an application's architecture different from the network architecture? Defend your answer.
   b) What is DNS? Explain how DNS works. [8+7]

6.a) Explain the categories of networks.
   b) Demonstrate Go Back-N sliding window Protocol with an example. [7+8]

7.a) Explain IEEE 802.11 standard for Ethernet with the help of frame format.
   b) Differentiate between pure ALOHA and slotted ALOHA. [8+7]

8. Write a short note on:
   a) SMTP
   b) HTTP. [8+7]

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