1. Explain the concept of ‘e-mail gateway’.
2. Briefly explain that how can you use TELNET for remote terminal emulation?
3. Write any three features of Intranet that differentiate it largely from Internet.
4. What is a packet filter that is often used to protect an organisation’s computer from unwanted Internet traffic called? Describe the concept.
5. What media can be used for Noise resistance? Briefly state its other advantages.
6. Write down 4 main features of mobile IP?
7. Explain briefly 3-tier Web Architecture?

2. Comment on the following statement making special reference to differences between JPEG and MPEG Standards. “There is a perceptible need for data compression as per certain standards, as the amount and type of data to be transferred over a network increases”.

3. Differentiate between any three of the following:
   a) Multicasting and Broadcasting
   b) Ipv.4 and Ipv.6
   c) Digital Signature and Digital Certificate
   d) File-Server architecture and Client/Server Architecture

4. Expand and explain in details any three of the following acronyms:
   a) VPN
   b) ISDN
   c) TCP/IP protocol
   d) OSPF protocol

5. Giving suitable examples, explain three different Classes of an Internet addressing, with special emphasis on the range spanned by each Class?
   a) Compare and Contrast between different multimedia compression techniques.
   b) Using XML, design a program for a book in library. Assume appropriate elements like: Book No., Book Name, Price, No. of Pages. Apply appropriate validation using DTD.
6. 
a) Explain briefly the Objects of Web Services Description Language (WSDL).
b) What is the role of the Web Server Gateway Interface?
c) Explain lucidly what is a ‘Web Service Protocol Stack’?

(6+6+6)

7. 
a) What is SOAP? Write a program to exchange sharing of object using SOAP Protocol.
b) Explain the philosophy over usage of LAMP (Linux, Apache, MySQL and PHP)?
c) Create a ASP Page to illustrate the use of QUERY STRING collection of request object.

(6+6+6)