

B. N. Bandodkar College Of Science, Thane
F.Y.B.Sc. Second Semester END Examination, March 2012
USIT205

Duration: 2 Hrs

Total Marks: 60

- Note:
1. All questions are compulsory.
 2. Figures on the right indicate maximum marks
 3. Make suitable assumptions wherever required and state it clearly.

- Q. 1** *Attempt any two of following* **10**
- a What is data communications? What are the main characteristics of data communication?
 - b Explain Fourier analysis of digital signals.
 - c Explain the terms: a. frequency b. Period c. Amplitude d. Bandwidth
- Q. 2** *Attempt any two of following* **10**
- a Explain Transport layer of OSI reference model
 - b Draw and explain TCP/IP Protocol suite
 - c Draw the IPv4 datagram format and explain about services in the IPv4.
- Q. 3** *Attempt any two of following* **10**
- a How is pictures and images stored in multimedia.
 - b What are the types of errors? Explain parity check in detail.
 - c Explain stop-and-wait Automatic Repeat Request.
- Q. 4** *Attempt any two of following* **10**
- a What are the two types of transmission of Digital Signals? Explain them with diagrams
 - b What are the factors that affect the performance of a network
 - c Write short notes on the modes of transmission
- Q. 5** *Attempt any two of following* **10**
- a What is topology? What are the types of topologies? Explain tree topology with its advantages and disadvantages.
 - b What is switching? Explain message switching in detail.
 - c Write notes on Link State routing
- Q. 6** *Attempt any two of following* **10**
- a Explain the disadvantages of IPv4.
 - b Explain the extension headers in IPv6.
 - c Explain transition from IPv4 to IPv6.