# B. N. BANDODKAR COLLEGE OF SCIENCE, THANE

F.Y.B.SC. (INFORMATION TECHNOLOGY) SEMESTER – II EXAMINATION; APRIL 2015

COURSE CODE– USIT205

**Duration: 2½ Hrs** **Total Marks: 75**

**N.B. 1. All questions are compulsory.**

**Q. 1** **Answer *any two* out of following** **10**

**a** Explain Data Representation and Data Flow in Data Communication in detail?

**b** What is protocol? Explain elements of protocol?

**c** Explain the Categories of Computer Network?

**d** What are the components of Data Communication System?

**Q. 2** **Answer *any two* out of following** **10**

**a** Explain the concept of layered task?

**b** Explain the working of Data link layer, Network layer and Transport layer with diagram?

**c** Explain the header of and IPv4 Packet?

**d** Explain in short the functions of every layer of TCP/IP?

**Q. 3** **Answer *any two* out of following** **10**

**a** What is Multimedia? Explain in detail?

**b** What is Error? Explain its Types?

**c** Explain Cyclic Redundancy Check in detail with example?

**d** Explain the Classification of errors?

**Q. 4** **Answer *any two* out of following** **10**

**a** What is Modulation? Explain its types?

**b** Explain Serial Transmission Mode & Types?

**c** Write short note on Transmission Media &Explain its types?

**d** Explain Twisted Pair Cables in detail?

**Q. 5** **Answer *any two* out of following** **10**

**a** What is Network? Explain its types?

**b** What is a Topology? What are its basic types?

**c** What is Routing? Explain Routing Metrics?

**d** What is Switching? Explain Message switching in detail?

**Q. 6** **Answer *any two* out of following** **10**

**a** Explain IPv6 Header format in detail with diagram?

**b** Explain IPv6 auto-configuration in detail?

**c** What is IPv6 addressing? Explain address syntax in detail?

**d** Explain IPv6 Transition in detail?

**Q. 7** **Answer *any three* out of following** **15**

**a** Define Analog and Digital Signal? Explain The Characteristics of Analog Signal?

**b** Write a short note on Physical layer in OSI Model?

**c** Explain Representation of different Symbols in detail?

**d** Write a short note on Guided Transmission media?

**e** Write a short note on Star and Mesh Topology?

**f** Explain Ipv6 Extension headers in detail?

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