

**B.TECH SEM – V (2007 COURSE) (COMPUTER ENGG.) : WINTER  
- 2017**

**SUBJECT: COMPUTER NETWORK AND COMMUNICATION**

Day : **Tuesday**  
Date : **16/01/2018**

**W-2017-2456**

Time **02.30 PM TO 05.30 PM**  
Max. Marks : 80

---

**N. B. :**

- 1) **Q. No. 1 and Q. No.5 are COMPULSORY.** Out of remaining questions attempt **ANY TWO** questions from each section.
  - 2) Answers to both the sections should be written in the **SEPARATE** answer books.
  - 3) Use of scientific **CALCULATOR** is allowed.
  - 4) Figures to the right indicate **FULL** marks.
  - 5) Assume suitable data if necessary.
- 

**SECTION - I**

- Q.1** a) What is the principle difference between connectionless communication and connection oriented communication. **(04)**  
b) Define throughput efficiency and explain how it can be increased? **(05)**  
c) Write short note on FDDI. **(05)**
- Q.2** a) With the help of illustrative diagrams explain the structure of ATM cells. **(07)**  
b) With neat diagram explain ISO-OSI Reference Model. **(06)**
- Q.3** a) A channel has a bit rate of 4kbps and propagation delay of 20 msec. for what range of frame sizes does stop and wait gives an efficiency of at least 50 percent. **(06)**  
b) List the difference between SLIP and PPP. **(07)**
- Q.4** a) What is wireless LAN and what properties they should have? Give at least 5 properties. **(07)**  
b) What is CSMA with collision detection? Explain. **(06)**

**SECTION - II**

- Q.5** a) What is socket? Explain the steps followed in socket programming with associated procedures. **(05)**  
b) Describe a typical resolution process in DNS. **(05)**  
c) Write short note on : Datagram Subnet **(04)**
- Q.6** a) What is fragmentation? Is fragmentation needed in concatenated virtual circuit internets, or only in datagram system? **(07)**  
b) Write short note on : **(06)**  
i) Tunneling  
ii) Leaky bucket algorithm
- Q.7** a) Explain in detail how TCP provides flow control. **(07)**  
b) Describe in detail about crash recovery. **(06)**
- Q.8** a) Briefly discuss the following terms : **(07)**  
i) Proxy server  
ii) Web server  
b) Discuss about static and dynamic web pages. **(06)**