

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 150702

Date: 05/05/2017

Subject Name: Computer Network

Time: 02:30 PM to 05:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Discuss different types of guided and unguided media used to transmit data in network. **07**
- (b) Draw the OSI reference model. Explain the functionality of each layer in brief. **07**
- Q.2** (a) Explain Ethernet Frame structure. **07**
- (b) What is Hamming Code? Explain how it is useful in error correction. **07**
- OR**
- (b) Explain link state routing with all the five steps in detail. **07**
- Q.3** (a) Explain Sliding Window Protocol. **07**
- (b) Explain IPv4 datagram format and importance of each field. **07**
- OR**
- Q.3** (a) What is ALOHA? Explain variants of ALOHA protocol. **07**
- (b) Compare the IPv4 and IPv6. **07**
- Q.4** (a) What is RPC? Draw and explain steps for RPC. **07**
- (b) Explain stop and wait protocol for simplex communication. **07**
- OR**
- Q.4** (a) What is DNS? How resource records are maintained in DNS? **07**
- (b) Explain working principle of wireless LAN protocols. **07**
- Q.5** (a) E-mail systems contain which two subsystems? Write the five basic functions provided by e-mail system. **07**
- (b) Explain the Mobile-IP. **07**
- OR**
- Q.5** (a) Differentiate the following: **07**
- (i) Connection Oriented Services and Connection Less Services
- (ii) OSPF and BGP
- (b) Explain following **07**
- Piggy backing
- Selective Repeat and Go back N
