



**DHARMSINH DESAI UNIVERSITY, NADIAD**

**FACULTY OF TECHNOLOGY**

**B.TECH. SEMESTER V [IT]**

**SUBJECT: (IT-505) COMPUTER & COMMUNICATION NETWORK**

**Examination : Block(Regular)**

**Seat No. : \_\_\_\_**

**Date : 16/10/2015**

**Day : Friday**

**Time : 11 to 12:15 pm**

**Max. Marks : 36**

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**INSTRUCTIONS:**

1. Figures to the right indicate maximum marks for that question.
  2. The symbols used carry their usual meanings.
  3. Assume suitable data, if required & mention them clearly.
  4. Draw neat sketches wherever necessary.
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**Q.1 Do as directed.**

**[12]**

- (a) Differentiate: TCP and UDP **[2]**
- (b) A bit-stuffing based framing protocol uses an 8-bit delimiter pattern of 01111110. If the output bit-string after stuffing is 01111100101, then what was the input bit-string? **[2]**
- (c) Define: (a) Encryption. (b) Confidentiality. **[2]**
- (d) What do you mean by reverse path forwarding? **[2]**
- (e) Define migratory host. **[2]**
- (f) What is optimality principle? **[2]**

**Q.2 Attempt the following questions.**

**[12]**

- A Explain Framing methods with example. **[6]**
- B Briefly explain public key cryptography. **[6]**

**Q.3 Attempt the following questions.**

**[12]**

- A Which TCP timer is use for the following situation? **[6]**
  - (1)To handle the zero window-size advertisement.
  - (2)To keeps track of the time between sending of a segment and the receipt of an acknowledgement
  - (3)To prevents long idle connection between two TCPs.
- B Explain collision free protocols. **[6]**