



**DHARMSINH DESAI UNIVERSITY, NADIAD**  
**FACULTY OF TECHNOLOGY**  
**B.TECH. SEMESTER VII [Information Technology]**  
**SUBJECT: (IT 715) Distributed Computing**

<b>Examination</b>	<b>: BLOCK Sessional - Reg</b>	<b>Seat No.</b>	<b>:</b>
<b>Date</b>	<b>: 21/10/2016</b>	<b>Day</b>	<b>: Friday</b>
<b>Time</b>	<b>: 11:00 to 12:15</b>	<b>Max. Marks</b>	<b>: 36</b>

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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) List out and explain functions used for locking and unlocking of semaphore [02]
  - (b) Explain `inet_ntop` and `inet_pton` function along with their function argument. [02]
  - (c) List out advantages of SOAP over IIOP. [02]
  - (d) Write down scenario where “**SO\_BROADCAST**” can be applied? And also write Function to do so? [02]
  - (e) Explain ARP and RARP. [02]
  - (f) List out scenario where SOA can't be used. [02]
- Q.2 Attempt following questions.** [12]
- (a) Explain each and every system call required to implement echo client-server program using TCP. [06]
  - (b) Write a program for file transfer client- server using shared Memory. [06]
- Q.3 Attempt following questions** [12]
- (a) Write down steps to create Webservice using contract first and it should follow document literal approach along with its deployment and how to test the implemented webservice. [06]
  - (b) Explain following paradigms: 1) Remote Method Invocation 2) Mobile Agent 3) Object Space. [06]