APR - 18/ BE/ Insem. - 76
B.E. (Information Technology)
DISTRIBUTED SYSTEM
(2012 Course) (Semester - II) (414461)

Time : 1 Hour]   *[Max. Marks :30*

Instructions to the candidates:

    1)   *Answer Q.1, or Q.2, Q.3, or Q.4, Q.5 or Q.6.*

    2)   *Figures to right indicate full marks.*

    3)   *Neat diagrams must be drawn wherever necessary.*

    4)   *Assume suitable data, if necessary.*

Q1) a)   Explain the models based on fundamental properties that are common in all of the architectural models. **[6]**

     b)   What is Scalability? Explain the design challenges of Scalable Distributed Systems. **[4]**

<div align="center">OR</div>

Q2) a)   Explain distributed multimedia systems in brief and justify with example that webcasting is an examples of distributed multimedia systems. **[6]**

     b)   Define Transparency and Briefly Explain the various forms of Transparency in a Distributed Systems. **[4]**

Q3) a)   Define the concept of Socket. Explain the issues and failure model with respect to Stream Communication. **[6]**

     b)   Explain the Message Queues considering programming model offered by message queueing systems. **[4]**

<div align="center">OR</div>

Q4) a)   Define the concept of Socket. Explain the issues and failure model with respect to Datagram Communication. **[6]**

     b)   What is Marshalling? How marshalling and serialization is used in communication between a client and a server? **[4]**

<div align="right">***P.T.O.***</div>

Q5) a) Explain the following with respect to Distributed Object Middleware framework: **[6]**

   i) Inter-object communication

   ii) Lifecycle management

   iii) Activation and Deactivation.

   b) State the applications of Web Services.Differentiate between SOAP and REST Web Services. **[4]**

<div align="center">OR</div>

Q6) a) What are the issues with object-oriented middleware? **[6]**

   b) Explain two main characteristics of distributed event-based systems.**[4]**