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B.E. (Information Technology) (Insem)
DISTRIBUTED SYSTEMS
(2019 Pattern) (Semester - VIII) (414450)

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

Instructions to the candidates:
  1) *Answer Q.1 or Q.2, Q.3 or Q4.*
  2) *Figures to the right indicate full marks.*
  3) *Neat diagrams must be drawn wherever necessary.*
  4) *Assume suitable data, if necessary.*

Q1) a) Describe precisely what is meant by a scalable system. Scalability can be achieved by applying different techniques. What are these techniques.
[5]

   b) Explain the concept of Web Service. Illustrate an application with suitable diagram that combines other web services.   **[5]**

   c) What are the two architectural styles stemming from the role of individual processes? Discuss in brief, the placement strategies in Peer-to-Peer architecture.   **[5]**

OR

Q2) a) Explain what is meant by distribution transparency and give example of different types of transparency.   **[5]**

   b) What are fundamental models? Discuss in brief, the interaction, failure, and security aspects in the fundamental models.   **[5]**

   c) What are the entities that are communicating in the distributed system? Discuss in brief, how do they communicate using communication paradigm?   **[5]**

Q3) a) What is the concept of middleware? Explain in brief, Message Oriented and Content Centric Middleware. **[5]**

b) Differentiate between RMI and CORBA. **[5]**

c) What is DCE? Discuss in brief, the various components of DCE? **[5]**

OR

Q4) a) What CORBA means? Explain the purpose of IDL in CORBA with suitable example. **[5]**

b) What is interceptor? Explain how remote-object invocation is handled using interceptors. **[5]**

c) What is adaptive software? Describe the concept of Separation of concerns and computational reflection in relation to adaptive software.

[5]

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