

Total No. of Questions : 4]

SEAT No. :

PA-10204

[6010]- 77

[Total No. of Pages : 2

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]

P.T.O.

- 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]

