Total No. of Questions : 4]

SEAT No. :

PD-392

[Total No. of Pages : 2

[6411]-185
B.E. (AI&DS)
Distributed Computing (Insem.)
(2019 Pattern) (Semester - VIII) (417531)

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

Instructions to the candidates:

1) ***Answer Q.1 or Q.2, Q.3 or Q.4.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Use of electronic pocket calculator is allowed***

Q1) a) What are the key features and characteristics of distributed pervasivecomputing? **[5]**

b) How would you analyze and illustrate the intricate relationship between middleware and the three-tier architecture through a detailed diagram, demonstrating their interconnected functionalities and roles within a system? **[6]**

c) Can you summarize the key components and objectives of Intelligent Transportation Systems (ITS) in a brief overview? **[4]**

OR

Q2) a) Can you enumerate the various types of distributed systems? **[5]**

b) What are the primary challenges related to data storage and retrieval in distributed computing environments, and how do they influence the overall performance and efficiency of the system? **[6]**

c) Can you summarize the key characteristics and distinguishing features of different distributed system models in a concise manner? **[4]**

Q3) a) "Why is there a necessity for the Google File System (GFS), and could you elaborate on its workings in detail? **[4]**

b) Explain Any Two from below: **[6]**

1) Eager Replication,

2) Lazy Replication

3) Quorum based Replication.

c) Discuss two consistency models in detail. Why is consistency important? Justify your answer. **[5]**

OR

Q4) a) Differentiate between Amazon web services, Azure Cloud and Google cloud Platform? **[4]**

b) Explain Message Broker and Stream Processing in detail ? **[6]**

c) Explain Distributed hash table, distributed inverted Indexing? **[5]**