Question Paper

MANIPAL UNIVERSITY

SCHOOL OF INFORMATION SCIENCES
FIRST SEMESTER Master of Engineering - ME (Big Data and Data Analytics)
DEGREE EXAMINATION - NOVEMBER 2017
DATE : Thursday, November 16, 2017
TIME : 10:00AM - 1:00PM
Large Scale Distributed Computing Systems [BDA 609]

Marks: 100   **Duration: 180 mins.**

Answer all the questions.

1) Explain Centralized De-Centralized and Hybrid Architectures with an example. (10)

2) Explain the different models of a distributed computation. Outline difference between Primary storage and secondary storage facilities. (10)

3) Write a program to send a file from Client to Server, assign a static port in the server and pass the file through the assigned port. (10)

4) What is RPC? Explain the context with an example. (10)

5) Explain the ACID properties of a distributed system. (10)

6) Explain the following: (10)
 A. Differentiate between a Switch and a Router   (5 marks)
 B. Can you assign multiple IP address to a same machine? Justify with an example.   (5 marks)
 C. What is Chubby and describe the two methods of Importing data into BigTable.   (10 marks)

7) What is two and three phase commit protocol? Explain any one. (10)

8) Outline the security threats that is posed to a distributed system in the current cyber age and what are the security measures that are required to adopt counter the same. (10)

9) What is CAP theorem? Explain any two in detail. (10)

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