Reg. No. :

Question Paper Code : 40919

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018
Seventh Semester
Computer Science and Engineering
CS 6703 – GRID AND CLOUD COMPUTING
(Regulations 2013)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions

PART – A   (10×2=20 Marks)

1. "Networks are backbones of grid computing" – Justify the statement.

2. Differentiate GRIS with GIIS with an illustration.

3. Justify that Web and Web architecture are SOA based.

4. List the services provided by a grid infrastructure.

5. How does performance enhances by virtualizing the data center ?

6. "Although virtualization is widely accepted today, it does have its limits". Comment on the statement.

7. How does divide-and-conquer strategy relates to MapReduce paradigm ?

8. Brief out the main components of Globus toolkit.

9. On what basis trust models are set for grid environment ?

10. State how CIA Triad plays a vital role in managing cloud security.

PART – B   (5×16=80 Marks)

11. a) Explain in detail the layered architecture of a grid environment and the functionalities of a grid server.

(OR)

b) Discuss the evolution path of cloud computing. Also, express the difference between grid and distributed computing.

12. a) Explain in detail the OGSA security architecture and its security services.

(OR)

b) What is the purpose of OGSI ? Describe the ports and interfaces defined in OGSI along with its inheritance hierarchy.

13. a) With architecture, elaborate the various deployment models and reference models of cloud computing.

(OR)

b) "Virtualization is the wave of the future". Justify. Explicate the process of CPU, memory and I/O device virtualization in data center.

14. a) List the characteristics of Globus tool kit. With a neat sketch describe the architecture of Globus GT4 and the services offered.

(OR)

b) With an illustration, emphasize the significance of MapReduce paradigm in Hadoop framework. List out the assumptions and goals set in HDFS architecture for processing the data based on divide-and-conquer strategy.

15. a) "In today's world, infrastructure security and data security is highly challenging at network, host and application levels". Justify and explain the several ways of protecting the data at transit and at rest.

(OR)

b) Explain the baseline Identity and Access Management (IAM) factors to be practised by the stakeholders of cloud services and the common key privacy issues likely to happen in the environment.