

Reg. No.:											10	504
-----------	--	--	--	--	--	--	--	--	--	--	----	-----

Question Paper Code: 50401

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017

Seventh Semester

Computer Science and Engineering CS 6703-GRID AND CLOUD COMPUTING

(Common to: Information Technology)

(Regulations 2013)

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions

PART - A (10×2=20 Marks)

- 1. "Grid inherits features of P2P and cluster computing systems". Is the statement true? Validate your answer.
- 2. Differentiate between grid and cloud computing.
- 3. Compare GSH with GSR.
- 4. What is the purpose of grid service description?
- 5. List the requirements of VMM.
- 6. Distinguish between physical and virtual clusters.
- 7. "HDFS is fault tolerant. Is it true? Justify your answer.
- 8. What is the purpose of heart beat in hadoop?
- 9. List any four host security threats in public laaS.
- 10. Identify the trust model based on a site's trust worthiness.

PART - B

 $(5\times16=80 \text{ Marks})$

- 11. a) i) Describe the infrastructure requirements for grid computing.
 - ii) What are the issues in cluster design? How can they be resolved?

(OR)

- b) i) Describe layered grid architecture. How does it map onto internet protocol architecture?
 - ii) Describe the architecture of a cluster with suitable illustrations.



12. a) "Data produced by a large Hadron Collider may exceed several petabyts". What type of grid service model(s) will you suggest for such an application? Illustrate with diagrams.

(OR)

- b) What is OGSA? Explain open grid services architecture in detail with the functionalities of the components.
- 13. a) Describe service and deployment models of a cloud computing environment with illustrations. How do they fit in NIST cloud architecture?

(OR)

- b) What is virtualisation? Describe para and full virtualisation architectures. Compare and contrast them.
- 14. a) Illustrate dataflow in HDFS during file read/write operation with suitable diagrams.

(OR)

- b) What is GT4? Describe in detail the components of GT4 with a suitable diagram.
- 15. a) What is the purpose of GSI? Describe the functionality of various layers in GSI.

 (OR)
 - b) What is the purpose of IAM? Describe its functional architecture with an illustration.

2. Left 14A for non-remary decade or par-

water Martin Martey

es at controlles for I a mount month

Perside to margaril manustages. Husedoss it may been interm