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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 (5×16=80 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.