



# ST. ANNE'S

## COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to Anna University, Chennai)

(An ISO 9001:2015 Certified Institution)

ANGUCHETTYPLAYAM, PANRUTI – 607 106.

### QUESTIONS BANK

#### CS6703-GRID AND CLOUD COMPUTING

##### UNIT-I

##### INTRODUCTION

##### PART-A

1. Difference between private and public cloud.(nov-16)
2. Write about importance of cloud computing.(NOV-16)
3. Write basic operation of VM.(MAY-17)
4. List the features of distributed computing.
5. Define multithreading.
6. What is GPU computing?
7. Define virtual machine.
8. Differentiate grid and cloud computing.
9. What is grid computing?
10. What are the business areas needs in Grid computing?
11. What are the grid applications?
12. "Networks are backbone of grid computing"-justify statements. [APR/MAY 2018]
13. Differentiate HPC and HTC.(MAY-17)
14. What is hypervisor.
15. Define multi-threading.
16. Define SOA.
17. What is OGSA.
18. What is grid portal.
19. Define WSRF.
20. Differentiate GRIS with GIIS. [APR/MAY 2018]

##### PART-B(16 MARKS)

1. Brief interaction between the GPU and CPU. (MAY-17)
2. Explain about grid computing infrastructure. . (MAY-17)
3. Explain about the VM. (NOV-16)
4. Write short notes on (NOV-16)
  - i) cluster of cooperative computers.
  - ii) SOA.
5. Explain about the elements of Grid.
6. Describe the technologies for network based system.
7. Explain the grid architecture. [APR/MAY 2018]
8. Difference between GRID and Cloud computing. [APR/MAY 2018]

**UNIT –II**  
**GRID SERVICES**  
**PART-A**

1. Define OGSA Framework.
2. Define Grid Service Migration.
3. List out the Basic Functionality Requirements.
4. List out the Security Requirements in OGSA.
5. Give the Resource Management Requirements in OGSA.
6. What are all the System Properties Requirements in OGSA .
7. What is OGSA/OGSI? A practical view. [APR/MAY 2018]
8. What is Grid Data Services.
9. What are the core properties of grid service.
10. Define Data-Intensive Grid Service Models.
11. What are the four access models for organizing a data grid.
12. List the services provided by gridarchitecture. [APR/MAY 2018]
13. Explain about Open Grid Services Architecture. (OGSA) (Nov 10)
14. Explain about Grid Service Providers (GSP).
15. What is Hyper threading?
16. What are the advantages a grid?
17. What are the services provided by the Grid?
18. Define OGSI.
19. Define GSH.
20. Define GSR.

**PART-B**

1. Explain Open Grid Services Architecture (OGSA) in detail.
2. Explain the Motivations for standardization in OGSA.
3. Explain functionality requirements of OGSA.
4. What is OGSA/OGSI? and explain A practical view of this method in detail . [APR/MAY 2018]
5. Explain in detail about Data intensive grid service models of OGSA?
6. Explain in detail about the OGSA SERVICES.
7. Explain in detail about the OGSA security architecture. [APR/MAY 2018]

**UNIT-III**  
**VIRTUALIZATION**  
**PART-A**

1. What is memory migration?
2. Write the steps for live VM migration?
3. Define KVM?
4. Define Hypervisor and Xen Server?

5. Explain Host OS and Guest OS?
6. Differentiate full virtualization and para-virtualization?
7. What is library support level of virtualization?
8. What is data center? [APR/MAY-2018]
9. What is network migration?
10. Mention the characteristics and features of Cloud.(APR/MAY-2017)
11. What is IO virtualization?
12. Write short notes about memory virtualization?
13. Write short notes on xen architecture?
14. What is meant by virtualization? (NOV/DEC-2016)
15. Define IaaS
16. Difference between PaaS and SaaS. (APR/MAY-2017)
17. What is private cloud?
18. What is public cloud?
19. What is hybrid cloud? (NOV/DEC-2016)
20. What is a Community Cloud ?

## **PART-B**

### **Cloud Deployment Models:**

- 1.Explain about cloud deployment model.(16) (NOV/DEC-2016) [APR/MAY-2018]

### **Categories Of Cloud Computing:**

- 2.Explain about the Categories of cloud computing.(16) (NOV/DEC-2016)

### **Pros And Cons Of Cloud Computing:**

- 3.Write about the Pros and Cons of cloud computing.(8)

### **Implementation Levels Of Virtualization:**

- 4.Describe about the Implementation levels of virtualization.(16) (APR/MAY-2017)

### **Virtualization Structure:**

- 5.Describe about the virtualization structure.(16)

### **Virtualization For Data Center Automation.:**

- 6.Explain about the Virtualization for data center automation.(16) (APR/MAY-2017) [APR/MAY-2018]
- 7.Compare virtual and physical clusters .Explain how resource management done for virtual clusters?  
(16) (jan 2105 )
- 8.Explain about VM migration.(8)

## UNIT-IV PROGRAMMING MODEL **PART-A**

1. Define Grid Computing Middleware.
2. What is Globus Resource Allocation Manager (GRAM). .(Apr/May-17)
3. Give Input Splitting concept in Hadoop Framework.
4. Define Blocks in HDFS.
5. Define Namenodes and Datanodes.
6. Give Globus Toolkit 4 provides components in the following five categories.
7. Define Security components.
8. Define Delegation service.
9. Name any four services offered in GT4.(Nov/Dec-16)
10. What are the advantages using HADOOP? (Nov/Dec-16)
11. Name the different modules in Hadoop Framework.(Apr/May-17)
12. What is GT4? (APR/MAY-2018)
13. What are objectives of GSI?
14. Define RTF and GridFTP.
15. What is MDS?
16. Give the features of index service.
17. What is CSF4?
18. What is Hadoop?
19. What is Mapreduce? [APR/MAY-2018]
20. Give the features of HDFS.

### **PART-B**

1. Explain in detail about The Globus Toolkit Architecture (GT4).(16) APR/MAY-2018
2. Explain about the main components of GT4.(16) (Nov/Dec-16)
3. Explain about the HADOOP framework.(16) (Nov/Dec-16)
4. Explain about the Map reduce with examples.(16)(Apr/May-17) APR-2018
5. Explain about HDFS.(16)(Apr/May-17) APR-2018
6. Write about the input splitting.(8)
7. Write about the open source middleware packages.(8)

### UNIT-V

## **SECURITY**

### **PART-A**

1. Define trust.
2. Define CA.
3. What are the various challenging in building the trust environment? (May-2017)
4. Write the security requirement of grid. (May-2017)
5. What are the types of authorization?
6. What is Identify security?
7. Discuss on the application and use of identity and access management. (Nov/Dec-2016)
8. What is IAM?
9. What is information security?
10. List the Three Authorization Models?
11. What is federation

12. What is Transport-Level Security? (Nov/Dec-2016)
13. What Is Privacy?
14. What are the Enterprise IAM requirement?
15. What is Clearing?
16. What is mean by Sanitization?
17. Define user profile.
18. What are the types of message level security?
19. What is PD?
20. List the challenges in Identity Provisioning.

**PART-B (ALL 16MARKS)**

1. Describe the grid security infrastructure. (May-2017,Nov-2016)
2. Explain the cloud security infrastructure.(Nov-2016) APR-2018
3. Explain about IAM architecture.(May-2017) APR/MAY-2018
4. Explain the various trust model in Grid.
5. Explain about data security.
6. Explain cloud privacy and privacy by design.