KUMARAGURU college of technology
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**B.E DEGREE EXAMINATIONS: MAY 2015**

(Regulation 2009)

Sixth Semester

**COMPUTER SCIENCE & ENGINEERING**

CSE131:Grid Computing

**Time: Three Hours** **Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. Grid computing environment is constructed on _____ .
   a) Coordinated Resources b) Open Standard protocols and frameworks
   c) Resource Capabilities d) a&b
2. Cluster of clusters is known as _____.
   a) Cluster computing b) Heterogeneous computing
   c) Grid computing d) P2P
3. Virtual Organizations are _____.
   a) Physical entities b) On- demand resource coordination
   c) Only hardware coordination d) Only software coordination
4. Which protocol is not defined in resource layer?
   a) HTTP b) GRAM
   c) FTP d) GRIS
5. Select the unsuitable characteristics of on-demand business.
   a) Resilient b) Focused
   c) Variable d) Static
6. Garuda is launched by _____.
   a) C-DAC b) IBM
   c) Amazon d) Google
7. Grid services are extension of _____.
   a) Application Services b) Security Services
   c) Web Services d) MPI Services

8. Expand OGSI.

a) Open Grid Services Infrastructure b) Open Grid Services Interface

c) Open Grid Services Interdependencies d) Open Grid Support Infrastructure

9. Amazon's service provides small virtual servers of _____.

a) Two virtual 32-bit core processor b) Two virtual 64-bit core processor

c) One virtual 64-bit core processor d) One virtual 32-bit core processor

10. Salesforce.com is of type _____.

a) IaaS b) PaaS

c) SaaS d) None of the above

**PART B (10 x 2 = 20 Marks)**

11. What are the functions of collective layer in grid Architectural layers?
12. What is the use of semantic grid? Give an example.
13. What is interaction aware state?
14. What are the standard roles for resources defined by SOAP specification?
15. Distinguish between WSDL 1.1 and WSDL 1.2.
16. What are the different types of load sharing facilities available?
17. What are the use cases that drive OGSA platform components?
18. State the goals of OGSA.
19. What is virtual machine? How is it used in cloud computing?
20. What do you mean by SLA management?

**PART C (5 x 14 = 70 Marks)**

21. a) (i) Briefly explain about the following grid computing models with suitable illustrations. (8)

High performance, cluster, peer-to-peer and internet computing.

(ii) Briefly explain about grid resource allocation management and grid file transfer protocol. (6)

**(OR)**

b) (i) Illustrate the results of applying various techniques to application integration. (7)

(ii) List the grid application characteristics and mention their uses. (7)

22. a) (i) List out the current grid activities and explain. (7)

(ii) Illustrate the grid architecture and outline the significance of its components. (7)

**(OR)**

b) Explain in detail about the grid computing road map and discuss about first, second and third generations of grid computing technology.

23. a) (i) Explain about web service architecture and list the purpose of core components. (7)

(ii) Illustrate the OGSA core platform components and explain. (7)

**(OR)**

b) Briefly explain about the following OGSA services.

1.CMM

2.Service Domain

3.Policy Architecture

4.Security Architecture

24. a) (i) Illustrate the Globus GT3 core architecture and explain about its core components. (7)

(ii) Illustrate JAX-RPC client side programming model and explain about it. (7)

**(OR)**

b) How will you build search engine using Globus GT3 toolkit and write the simple search engine implementation code? Explain.

25. a) (i) What is cloud computing? How will you develop cloud services? List the types of cloud service deployment and explain about discovering cloud services development services and tools. (7)

(ii) Summarize the history of cloud computing. (7)

**(OR)**

b) Briefly explain how cloud computing applications can be used for

1. Family
2. Community
3. Corporation