KUMARAGURU
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Register Number:……..…

M.E DEGREE EXAMINATIONS: JUNE 2015

(Regulation 2014)

Second Semester

COMPUTER SCIENCE AND ENGINEERING

P14CSTE23: Grid And Cloud Computing

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

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Consider the following statement: [K_2]

Which two statements are true about the public cloud?

1. It shifts the bulk of the cost for IT Infrastructure investment to an utility operating expenditure model.
2. Resources are dynamically provisioned on a self service basis from third party service provider through multi-tenanted infrastructure.
3. It shifts bulk of the cost from capital expenditures to creating a virtualized environment within the enterprise data center.
4. It meets security and quality documents requirements for highly regulated industries.

a) 1,3 b) 1,2

c) 2,4 d) 3,4

2. An RPC client and server have to be implemented in the same language and use the same_____ [K_2]

a) RPC package b) IDL interface

c) Programming Language d) TCP/IP socket

3. Java Certificate Request save in local disk with extension of _____ [K_2]

a) .csr b) .enc

c) .p12 d) .cer

4. Match list I with list II and select the correct answer for the given below table [K_2]

List I	List II
A. OGSA	i. WSDL
B. SOAP	ii. HP

C. GT3	iii.SOA
D. WSF	iv. GRAM

A B C D

a) ii i iv iii

b) iv iii i ii

c) iii i iv ii

d) ii iii I iv

5. The following items statements, one labeled as the "Assertion(A)" and the other as "Reason(R)". You are request to examine the those two statements carefully and select the appropriate answers to these items using the below codes. [K_2]

Assertion (A): The need and availability of a specific hardware and software required for run the host application in cloud.

Reason (R): The compatibility of the application with the cloud platform being used within MSP's data center

a) Both A and R are individually true and R is the correct explanation of A.

b) Both A and R are individually true and R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

6. Nimrod/G supports a simple _____ parametric modeling language. [K_1]

a) GrADS

b) Genetic

c) Simulated Annealing

d) Declarative

7. Consider the following statement: [K_2]

What are two important benefits of using cloud computing?

Which of these statements are correct?

1. Quick deployment of single tenant application.
2. Optimizes IT investments.
3. Provides better availability than a standard computing setup.
4. Lower total cost of ownership and improved asset utilization.

a) 1,2

b) 2,4

c) 3,4

d) 2,3

8. The following items statements, one labeled as the "Assertion(A)" and the other as "Reason(R)". You are request to examine the those two statements carefully and select the appropriate answers to these items using the below codes. [K_2]

Assertion (A): Cloud service does not work well with low speed connection.

Reason (R): All data stored on cloud computing might not be secure.

a) Both A and R are individually true and A is the correct explanation of R.
b) Both A and R are individually false and R is not the correct explanation of A
c) A is true but R is false
d) A is false but R is true

9. Software as a service is considered to be included in which cloud computing layer? [K_2]
a) Data
b) Application
c) Infrastructure
d) Client

10. Consider the following statement for typical federated cloud computing. [K_3]
1. Different cloud providers collaborate by sharing their resources.
2. Virtual local network are needed for the inter-process communication.
3. Application running in this cloud should be unaware of location
4. Cloud provides differentiate from each in term of cost and security level.

a) 1-3-4-2
b) 3-4-1-2
c) 1-3-2-4
d) 2-1-4-3

PART B (10 x 2 = 20 Marks)

11. List out four OGSA Grid service interface. [K_1]
12. Draw the relationship diagram and mention the components of Grid, the Semantic Web and Semantic Grid. [K_1]
13. List four classic security concerns of information security. [K_1]
14. What are the contents available in Public-key certificate? [K_1]
15. Write the formula for Job selection in Grid resource selection. [K_1]
16. Illustrate Daemons in a PBS cluster [K_2]
17. Is the Web based Cloud support for power user. Justify it with your own words. [K_3]
18. Mention the levels of Automated policy management in cloud [K_1]
19. What is Hardware Virtualization? [K_1]
20. Differentiate Internet Cloud and Enterprise Cloud. [K_2]

PART C (10 x 5 = 50 Marks)

21. Describe the different functionality for Grid GDS. [K_2]
22. Differentiate WSRF and OGSI [K_2]
23. Illustrate Global Grid Forum standard and how it allow users and applications to access resources securely in Grid environment. [K_2]
24. Explain the following: [K_2]
i) Securing private keys

ii) Mutual Authentication

25. Apply the concept grid scheduling, which of the method well suitable for large data and available in different geographical area. Simulate with your own example. [K_3]

26. Illustrate the Sun Grid Engine. [K_2]

27. Demonstrate how the Google Docs works. What will happen when more than one user access and Edit the same document simultaneously? Experience with your answer. [K_4]

28. Briefly explain and how will you make use of cloud computing applications in the following category [K_2]

i) Cloud computing for family ii) Cloud computing for community

29. Draw the virtual hypervisor for hosting virtual machine and explain how the Xen and KVM support for creating cloud environment. [K_2]

30. Describe Live migration timeline with its sequence stages [K_2]

PART D (2 x 10 = 20 Marks)

31. Explain the use of Cloud infrastructure services. Which of the cloud services are used by Amazon.com for their successful online shopping. Draw the appropriate Cloud services for Amazon and explain various services support by Amazon with EC2. 10 [K_3]

32. How will you build E-mail service using Globus GT3 toolkit and Sketch the Data-flow control in implementing GT3 applications and explain each Data-flow. 10 [K_3]

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