KUMARAGURU
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Register Number: ………………..

B.TECH DEGREE EXAMINATIONS: APRIL 2015

(Regulation 2009)

Eighth Semester

INFORMATION TECHNOLOGY

CSE131: Grid Computing

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

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. SETI@Home project belongs to which area of interest?

     a)   Cryptography   b)   Science

     c)   Maths   d)   Life Sciences

2. Grid computing refers to_____ .

     a)   P2P Computing   b)   Utility Computing

     c)   Cluster of Clusters   d)   Both b and c

3. _____ helps to perform parallel computing with shared memory programming semantics.

     a)   OpenMP   b)   FORTRAN

     c)   PROLOG   d)   ParallelC

4. _____ is the standard Unix solution for accessing files on remote machines within a LAN.

     a)   Linux   b)   MPI

     c)   XFS   d)   NFS

5. _____ portType of OGSI encapsulates the root behavior of the service model.

     a)   Factory   b)   GridService

     c)   ServiceGroup   d)   HandleResolver

6. Expand WAS.

     a)   Web Application Script   b)   Web Application Service

     c)   Web Annotation Server   d)   Websphere Application Server

7.   Fractal image compression is _____.

     a)   Data intensive application   b)   Procedure intensive application

     c)   Computational intensive application   d)   All the above

8. _____ provides the ability to submit and control jobs in Globus Toolkit.

    a) GRAM   b) GSI

    c) GSR   d) GSC

9. Expansion of IaaS is _____.

    a) Infrastructure as a Support   b) Intelligence as a Service

    c) Infrastructure as a Service   d) IBM Cloud as a Server

10. _____ helps to store address book online.

    a) BaseCamp   b) AceProject

    c) Plaxo   d) Vertabase

PART B (10 x 2 = 20 Marks)

11. Differentiate between peer-to-peer and internet computing.

12. Explain about peering points of Grid network.

13. Differentiate between NotificationSource and NotificationSink port types.

14. Define grid service orchestration.

15. Illustrate SOA interaction pattern using a sketch.

16. What are the load balancing techniques used in Grids?

17. What are the characteristics of SOAP features?

18. List three of the .NET middleware services offered by OGSI.

19. Define Cloud Computing.

20. State the main functions carried out by Amazon.com related to Cloud Computing.

PART C (5 x 14 = 70 Marks)

21. a) (i) Explain about Grid Resource Allocation Management Protocol and Grid FTP.   (7)

      (ii) Explain about compute, data and enterprise grids.   (7)

(OR)

  b) (i) With a neat sketch, describe the Layered approach of Grid Architecture.   (10)

      (ii) Enumerate the characteristics of grid applications.   (4)

22. a) (i) What are the early and current grid activities? Explain.   (8)

      (ii) How do you perform task scheduling for jobs on multiple resources with varying computational speed? Present your views on the most effective scheduling method using an example.   (6)

b) (i) Explain about the SOAP technology. (7)

(ii) Write a short note on Grid applications. (7)

23. a) Explain about the three components of OGSA platform.

(OR)

b) (i) How have OGSA grids been implemented using GT3? (7)

(ii) How are Data access and integration services carried out by its working group? (7)
Explain.

24. a) Explain about Globus Software Architecture model.

(OR)

b) Relate the high level services offered by Globus GT3.

25. a) (i) Outline the history of developments of Cloud Computing. (7)

(ii) What are the major advantages and disadvantages of Cloud Computing? (7)

(OR)

b) Explain how family and corporations get benefitted by using cloud services. (7)

Differentiate between PaaS and SaaS. (7)

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