Reg. No. :

Question Paper Code: 92031

M.E. DEGREE EXAMINATION, OCTOBER - 2014.

Elective

Computer Science and Engineering

01PCS501- GRID COMPUTING PRINCIPLES

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Write the purposes of grid portal.

2. List the core objects defined by Legion system.

3. Differentiate grid computing and peer - to - peer computing.

4. State the four essential characteristics of on-demand computing

5. Specify the major goals of OGSA.

6. What are the OGSA basic services?

7. Mention the purpose of pivot handlers.

8. What are the requirements to be fulfilled for information service in the context of GT3?

9. What are the client side security handlers in GT3?

10. State the types of message handlers provided by OGSI.NET.

PART - B (5 x 14 = 70 Marks)

11. (a) (i) Describe on grid schedulers, briefly. (6)

    (ii) How do resource brokers provide pairing service between service providers and service consumers? (8)

Or

    (b) Illustrate the Legion application architecture with neat diagram. (14)

12. (a) Draw the layered grid architecture and explain each layer in detail. (14)

Or

    (b) Explain how SOAP is used to package and envelope XML web service messages. (14)

13. (a) Explain in detail about the layers of OGSA and the core components. (14)

Or

    (b) (i) Briefly explain about commercial data center. (6)

    (ii) Elaborate on policy architecture and levels of policy abstraction. (8)

14. (a) Explain the software architecture model of globus GT3 toolkit with neat diagram. (14)

Or

    (b) (i) What are the types of message level security mechanisms provided by GT3 frame work? Explain in detail. (8)

    (ii) Draw the sequence diagram for handling operation providers in GT3. (6)

15. (a) Draw the OGSI.NET architecture and explain its components. (14)

Or

    (b) Describe in detail about index services provided by GT3. (14)

PART - C (1 x 10 = 10 Marks)

16. (a) Draw the architecture of GRAM and explain its components in detail. (10)

Or

    (b) Explain the handle resolution process to resolve GSH into GSR. (10)

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