

C. U. SHAH UNIVERSITY

Summer Examination-2017

Subject Name : Advanced Computing

Subject Code : 4TE08AC01

Branch: B.Tech (IT)

Semester : 8

Date : 18/04/2017

Time : 02:30 To 05:30

Marks : 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

- Q-1 Attempt the following questions:**
- | | | |
|----|--|-----------|
| a) | What are the types of Cloud service development? | 01 |
| b) | What is mean by Virtualization? | 01 |
| c) | Define OGSA? | 01 |
| d) | What is the use of API's in cloud services? | 01 |
| e) | List out commodity components user for building clusters. | 01 |
| f) | List some grid computing toolkits and frameworks? | 01 |
| g) | Define SOAP? | 01 |
| h) | Which one of the following support shared nothing architecture? | 01 |
| | (a) MPP (b) SMP | |
| | (c) Distributed System (d) Cluster | |
| i) | The _____perform the task of presenting, sharing, storing and extracting data from users. | 01 |
| | (a) Knowledge services (b) Application services | |
| | (c) Information services (d) Data services | |
| j) | Which of the following is not the PaaS Provider | 01 |
| | (a) Google App Engine (b) AppJet | |
| | (c) Qrimp (d) Net Suite | |
| k) | Which Grid application is used to collect, analyze and store the data and information? | 01 |
| | (a) Life science applications (b) Engineering oriented applications | |
| | (c) Data oriented applications (d) Commercial applications | |
| l) | _____is a collection of interconnected computers which is designed to provide an illusion of a single system to the users. | 01 |
| | (a) SSI (b) SCI | |
| | (c) Myrinet (d) MPI | |
| m) | _____refer to a computing approach that involves self-managed computer systems which require minimal human interference. | 01 |
| | (a) Distributed computing (b) Sensor network | |
| | (c) Autonomic computing (d) P2P technology | |
| n) | Which of the following is a Cloud Type? | 01 |
| | (a) Public Cloud (b) Private Cloud | |
| | (c) Hybrid Cloud (d) All of the above | |



Attempt any four questions from Q-2 to Q-8

- Q-2 Attempt all questions**
- (a) Explain FLS algorithm in detail and explain resource location study. **07**
 - (b) List and explain services and tools which are provided by Grid Technology to build virtual Organization? **07**
- Q-3 Attempt all questions**
- (a) Explain Beowulf Cluster and Berkeley NOW clusters. **07**
 - (b) What is Cloud computing? What is significance of Cloud Computing? Compare Cloud Providers with Traditional IT Service providers. **07**
- Q-4 Attempt all questions**
- (a) Compare the role of IaaS, PaaS and SaaS in cloud computing implementation. Also explain role of Virtualization. **07**
 - (b) Define cluster computing and explain its components with an architecture diagram **07**
- Q-5 Attempt all questions**
- (a) Explain in brief the key services of SSI and availability infrastructure. **07**
 - (b) Define grid computing and explain the various building blocks of the grid and its Application. **07**
- Q-6 Attempt all questions**
- (a) Explain the NIST cloud computing reference architecture **07**
 - (b) Explain briefly about Web service architecture. **07**
- Q-7 Attempt all questions**
- (a) Briefly explain the layered architecture of grid. **07**
 - (b) Explain the various types of cloud computing. **07**
- Q-8 Attempt all questions**
- (a) Explain Amazon EC2 project with its contribution in IaaS. **07**
 - (b) Write short notes on : **07**
 - I. Service oriented architecture
 - II. Semantic grids

