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Total Number of Pages : 02

MCA  
MCA505C

5<sup>th</sup> Semester Regular Examination 2019-20

CLOUD COMPUTING

BRANCH : MCA

Max Marks : 100

Time : 3 Hours

Q.CODE : HR327

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

**Part-I**

**Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)**

- a) Will it be possible to provide Cloud services without Virtualization? Justify your answer.
- b) What is hypervisor and list its advantages.
- c) What do you mean by server consolidation?
- d) What is mobile cloud computing?
- e) Differentiate between inter cloud and intra cloud.
- f) List the pros and cons of cloud computing.
- g) What is utility computing?
- h) What is the role of Big Data in cloud computing?
- i) Assume your company wants to launch an e-commerce website. Which cloud services and deployment models will you consider for the website?
- j) Briefly summarize the challenges still open in cloud computing.

**Part-II**

**Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)**

- a) Distinguish between IaaS, PaaS and SaaS.
- b) Write notes on CPU Virtualization and its advantages.
- c) Explain the architectural design challenges in cloud computing?
- d) What is resource provisioning? Explain with suitable example.
- e) Explain the security architecture design with example.
- f) What are the fault tolerant mechanisms in cloud computing?
- g) What is integrated development environment? How it is related to PaaS application framework?
- h) Draw the SQL Azure architecture.
- i) Which are the basic components of an IaaS-based solution for cloud computing? Explain.
- j) Explain the architecture of Force.com.
- k) What is the Windows Azure platform appliance? For which kinds of scenarios was this appliance designed?
- l) How security is different from privacy in the context of cloud computing?

**Part-III**

**Only Long Answer Type Questions (Answer Any Two out of Four)**

- Q3** Define Cloud computing. Enlist and explain essential characteristics of cloud computing. Explain the technologies behind cloud computing. Mention the scope and limitations of each technology. **(16)**
- Q4** Compare the SOAP and REST paradigms in the context of programmatic communication between applications deployed on different cloud providers, or between cloud applications and those deployed in-house. **(16)**
- Q5** Explain about Amazon EC2 instances and its basic features. Compare and contrast Amazon EC2, Google App Engine and Microsoft Azure in the context of a Platform-as-a-Services. **(16)**
- Q6** What is Windows Azure? Describe the architecture of Microsoft Windows Azure platform. How power and space requirement can be minimized using Cloud-based technologies. **(16)**