

16283(D) - 0 DEC 2016

B. Tech 8th Semester Examination
Fundamentals of Cloud Computing (NS)

CS-424/IT-423

Time : 3 Hours

Max. Marks : 100

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Candidates are required to attempt five questions in all selecting one question from each of the sections A, B, C & D of the question paper and all the subparts of the questions in Section E. Use of non-programmable calculator is allowed.

SECTION - A

1. Enumerate the differences between the classic data centre and the cloud-based data centre highlighting the characteristics of both types of data centres separately. Which one is better and why? (7+7+3+3=20)
2. Discuss various components of a classic data centre and their roles with the help of a suitable diagram. (10+7+3=20)

SECTION - B

3. Discuss the principle technologies used to design and implement the cloud solutions. (20)
4. (a) Explain what a storage cloud is. How can it be implemented? (10)
(b) What is cloud orchestration? Discuss the working of On-premises cloud orchestration engine. (3+7=10)

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SECTION - C

5. (a) What is x86 architecture? How can it be virtualized? (3+7=10)
(b) Discuss the characteristic features of Hypervisor Management Software. (10)
6. (a) What is SAN? How can SAN be implemented? Discuss its merits and demerits. (2+5+3=10)
(b) Explain backup and recovery strategies for Virtual Machines. (5+5=10)

SECTION - D

7. Explain SOA viz-a-viz IaaS. Discuss the concept of SOA based cloud infrastructure. (4+4+12=20)
8. Discuss various security concerns and the counter measures related to VDCs and cloud environments. (5+5+5+5=20)

SECTION - E

9. Explain the following in brief:
(a) Data Consistency
(b) Ubiquitous services
(c) Service
(d) Cloud
(e) IaaS
(f) Pay per use
(g) VDC
(h) Cloud server
(i) Cloud security
(j) Cloud scalability (2×10=20)