



**DF-1666**  
**M. Sc. (I.C.T.) (Sem. III) Examination**  
**March / April - 2016**  
**Cloud Computing**  
*(Old & New)*

Time : 3 Hours]

[Total Marks : 70

**Instructions :**

(1)

<p>नीचे दृशांवेव निशानीवाणी विगतो उतरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : <b>M. SC. (I.C.T.) (SEM. III)</b></p> <p>Name of the Subject : <b>CLOUD COMPUTING (OLD &amp; NEW)</b></p> <p>Subject Code No. : <b>1 6 6 6</b> Section No. (1, 2,.....): <b>Nil</b></p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div>
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(2) Draw figures and give examples wherever necessary.

- Q.1 Answer in brief. (Any SEVEN) [14]**
- Explain, "Meet the Middle Approach" in SOA.
  - Explain the reason of having a Proxy access to a Business Application in Service Routing.
  - How will you make a method call in Service Bus.
  - Write all the steps to read a JSON file using BPEL.
  - What is scalability in cloud computing?
  - Explain Storage Area Network.
  - Give difference between cloud computing and virtualization.
  - How virtualization allows consolidation of servers?
- Q.2 Attempt any TWO. [14]**
- Explain various Cloud deployment models along with its advantages and disadvantages.
  - Write a note on various Cloud Services. For each service specify its importance with example.
  - What is Map-Reduce? By giving example explain its technique to store large amount of data for optimum storage and retrieval.
- Q.3 Attempt any TWO. [14]**
- How cloud datacenter architecture is capable to manage its characteristics?
  - "A group of small fishes can be bigger than a big fish." Justify the statement for computing infrastructure.
  - How virtualization is useful for cloud datacenter? Explain any one type of virtualization with its pros and cons.
- Q.4 Do as directed.**
- Explain complete SOA organization in detail with suitable example. [07]
  - With suitable example show data routing, transformation and protocol treatment with Enterprise services with an example. [07]

**Q.5 Do as directed.**

a. Explain the benefits of SOA for an organization. Explain all the steps required to transform a conventional business process into a SOA based business process with a suitable example and scenario. [07]

b. Explain the life cycle of SOA based design and development. [07]

OR

b. The SOA application has a BPEL end point which asks the data month-wise, week-wise sale for a list of products and annual grand total of sales. Half of the products and their sales are stored in one database server where as the rest are stored on another server. An EJB does the annual grand total of all the sales. Using BPEL based SOA services list all the steps to complete the application. [07]

