

TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2079 Bhadra

Exam.	Regular		
Level	BE	Full Marks	80
Programme	BEX, BCT	Pass Marks	32
Year / Part	IV / I	Time	3 hrs.

Subject: - Enterprise Computing (Elective I)(CT72507)

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ Attempt All questions.
- ✓ The figures in the margin indicate **Full Marks**.
- ✓ Assume suitable data if necessary.

1. Define enterprise computing. Briefly explain about the information systems that are used by function units of an enterprise. [2+6]
2. Give an overview of shift of computing paradigm. How computing paradigm is preferred in business today? Justify your argument. [4+4]
3. What is Service-Oriented Architecture(SOA) and Microservices based Architecture? Are we still using Main Frame architecture? Justify with examples. [2+2+4]
4. IOE plans to host its MIS in the cloud. As a solution Architect, you need to design a system with appropriate components (servers, databases, load balancing, monitoring and notification system e.tc.). Draw a block diagram by explaining the component that is required while deploying in the cloud. [8]
5. What are IaaS, PaaS, SaaS and the differences among these services? Clearly explain with examples the details of pros and cons of these modes of services from the perspective of solution architect. [8]
6. What is Auto Scaling? When do we use it? Explain with an architecture. List down its use cases. [2+2+3]
7. Give an overview of enterprise cloud computing ecosystem. List down its deployment model. [4+3]
8. How can we maintain security in cloud? Discuss with appropriate examples. [6]
9. An enterprise is willing to procure an ERP software but is undecided whether to host the application on premises or in the cloud. As a solution architect, make a detailed comparison of cost for hosting the ERP software on premises and in the cloud for 5 years. Provide an appropriate suggestion to the enterprise. You need list down all the factors you have considered and assumed for convincing the management. [8]
10. Write short notes on: [3×4]
 - a) Load balancing
 - b) Nepalese Government Enterprise Architecture
 - c) Enterprise Analytics
