

T.Y.B.Sc (Comp. Sci) sem-VI dt 11/12/24

Time: 2 ½ Hours

Total Marks: 75

N. B.: (1) All questions are compulsory.

(2) Make suitable assumptions wherever necessary and state the assumptions made.

(3) Answers to the same question must be written together.

(4) Numbers to the right indicate marks.

(5) Draw neat labeled diagrams wherever necessary.

(6) Use of Non-programmable calculators is allowed.

1. Attempt any four of the following:

20

- Explain Service-Oriented Architecture (SOA)?
- Explain Cluster computing ?
- What is the major revolution introduced by Web 2.0?
- Explain Single-instruction, single-data (SISD) systems?
- What are approaches to parallel programming ?
- Write short note on "Remote procedure call".

2. Attempt any four of the following:

20

- Explain Virtualization reference model?
- Explain the types of hypervisor?
- Explain Paravirtualization and Programming language-level virtualization?
- Explain the advantages of virtualization ?
- Explain Features of oVirt
- Explain KVM features ?

3. Attempt any four of the following:

20

- Write a short note on "OpenStack test-drive"
- Write a short note on "Tenant model operations"
- Explain the following concept in detail : Networking deployment
- Explain the following concept in detail : deploying and utilizing OpenStack in production environments.
- Explain the following concepts in detail : Block Storage deployment
- What is openstack?

4. Attempt any Three of the following:

15

- Explain the Cloud Reference Model?
- Explain Infrastructure as a service or hardware as a service ?
- Write short note on "Hybrid clouds"
- Explain the following concept in detail : Controller deployment
- Illustrate the concept of Application orchestration using OpenStack Heat?
- What are the open challenges of cloud computing?