

(2 ½ Hours)

[Total Marks: 75]

- N.B.
- 1) All questions are compulsory.
 - 2) Figures to the right indicate marks.
 - 3) Illustrations, in-depth answers and diagrams will be appreciated.
 - 4) Mixing of sub-questions is not allowed.

Q. 1 Attempt ANY FOUR from the following: (20M)

- (a) Explain the structure of SOAP message.
- (b) Write a web service method that accepts two numbers as parameters and returns the largest of those numbers using JAX-WS. (Write only the Webservice method block)
- (c) Differentiate between Parallel Computing and Distributed Computing.
- (d) List and explain the various Http methods required for creating RESTful Web Services.
- (e) Explain the different characteristics of Virtualized environment.
- (f) Explain virtualization using KVM.

Q. 2 Attempt ANY FOUR from the following: (20M)

- (a) Explain the advantages of Cloud Computing.
- (b) Describe the Cloud Computing Reference Model in detail
- (c) Explain open challenges of Cloud Computing.
- (d) Write about various Security Services of Cloud.
- (e) Explain the cloud security design principles.
- (f) Explain Cloud Security Policy Implementation.

Q. 3 Attempt ANY FOUR from the following: (20M)

- (a) Explain CloudSim architecture in detail. Also draw the necessary diagram for the same.
- (b) Explain different features of CloudSim.
- (c) Write about the working platform for CloudSim.
- (d) Explain the key components of OpenStack?
- (e) What is DevStack? Explain the installation steps.
- (f) Explain Components and services of AWS.

Q. 4 Attempt ANY FIVE from the following: (15M)

- (a) Write in short about JAX-WS.
- (b) What are the type of Cloud? Write in short about any one
- (c) Write a short note on GridSim.
- (d) Describe oVirt in short.
- (e) What are the security best practices for AWS.
- (f) What is an OpenStack.
