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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Third Semester, M. Tech - Computer Engineering (MCEN)

Semester End Examination; Dec - 2017/Jan - 2018

Cloud Security

Time: 3 hrs

Max. Marks: 100

Note: Answer **FIVE** full questions, selecting **ONE** full question from each unit.

UNIT - I

- 1 a. Differentiate between cloud service delivery models versus cloud deployment models with suitable examples. 10
- b. Discuss the various barriers that are involved in cloud adoption in the enterprise. 10
- 2 a. Discuss in detail the SPI framework for cloud with suitable examples. 10
- b. Explain the infrastructure security at the following levels : 10
 - (i) Network level
 - (ii) Host level
 - (iii) Application level.

UNIT - II

- 3 a. Discuss the various IAM standards and protocols for cloud services. 10
- b. Explain the enterprise IAM functional architecture with a neat sketch. 10
- 4 a. Discuss the concept of data security mitigation in addressing the cloud risk factors. 10
- b. Differentiate between Symmetric and Asymmetric encryption with appropriate sketches. 10

UNIT - III

- 5 a. Discuss the life cycle of ITIL in an enterprise with a suitable example. 10
- b. Explain the following concepts : 10
 - (i) SaaS Availability Management
 - (ii) PaaS Availability Management
 - (iii) IaaS Availability Management.
- 6 a. Define privacy. Discuss the data life cycle of KPMG with suitable sketch and components of each phase. 10
- b. Explain the potential impact of cloud computing on the key OECD and other common privacy principles. 10

UNIT - IV

- 7 a. Define Audit. Explain the CSP cycle approach with a neat sketch in detail. 10
- b. Discuss the benefits of GRC for CSP's with suitable examples. 10
- 8 a. Discuss in brief on how key management is factored for access control in the cloud? 10
- b. Give a brief detail on AWS use case with reference to IaaS. 10

UNIT - V

- 9 a. Discuss the concept of vulnerability management with suitable examples. 10
- b. Elaborate on the impact of cloud computing on the role of corporate IT. 10
- 10 a. Discuss the concept of potential threats of using CSPs with suitable examples. 12
- b. List and explain the governance factors to consider when using cloud computing. 8