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

(An Autonomous Institution affiliated to VTU, Belgaum)

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

Semester End Examination; Dec - 2016/Jan - 2017

Cloud Security

Time: 3 hrs

Max. Marks: 100

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

UNIT - I

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|---|----|---|----|
| 1 | a. | What is cloud computing and explain SPI framework for cloud computing. | 10 |
| | b. | List the different types of cloud deployment model. Describe the importance of each. | 10 |
| 2 | a. | List and explain reasons to move operations towards cloud computing. | 4 |
| | b. | Discuss the impact of cloud computing on different type of users. | 6 |
| | c. | Explain the significant barrier for adaptation by the enterprises. | 6 |
| | d. | What is the impact of cloud computing on the governance structure of IT organization? | 4 |

UNIT - II

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|---|----|--|---|
| 3 | a. | Write a note on the following with respect to data security : | |
| | | i) Data-in-transit (Aspect of Data Security) ii) Data at rest. | 7 |
| | b. | What is confidentiality? How confidentiality can be provided? | 6 |
| | c. | Discuss the threats to availability and importance of integrity. | 7 |
| 4 | a. | Why Identity and Access management is needed? Discuss its challenges. | 6 |
| | b. | Explain IAM Architecture. | 8 |
| | c. | Differentiate between various IAM protocols and standards that are oriented towards consumer cloud services. | 6 |

UNIT - III

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|---|----|---|----|
| 5 | a. | List the relevant processes to focus for security management in the cloud and explain availability management in detail. | 10 |
| | b. | Explain the purpose of Access control of IaaS and list its models. | 8 |
| | c. | Explain in brief about security vulnerability management. | 2 |
| 6 | a. | What is privacy and illustrate how data be managed from the time the information is conceived through to its final disposition. | 10 |
| | b. | List the key privacy concess in the cloud and who is responsible for protecting privacy. | 10 |

UNIT - IV

- 7 a. Why GRC (Government Risk and Compliance) has been adopted? Discuss its key components with GRC implementation. 10
- b. How key management plays an important role in providing security and how key can be managed with control objectives? 10
- 8 a. Discuss Microsoft Azure Service platform in detail. 10
- b. What are the changes to implement privacy risk management? Discuss compliance in relation to cloud computing. 10

UNIT - V

- 9 a. With a neat sketch and describe SaaS Web content filtering and IDaaS Model. 10
- b. List the governance factors to consider when using cloud computing. 6
- c. List the potential threats of using CSP. 4
- 10 a. Why cloud computing will be popular with business units? Discuss. 10
- b. Write short notes on : 10
 - i) Vulnerability management
 - ii) ITL management process and functions.

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