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

(An Autonomous Institution affiliated to VTU, Belagavi)

Fourth Semester, Master of Computer Applications (MCA)

Semester End Examination; May/June - 2018

Cloud Computing

Time: 3 hrs

Max. Marks: 100

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

UNIT - I

- 1a. Define cloud computing. Explain IaaS, PaaS and SaaS with relevant diagram for each. 12
- b. List and explain the most obvious obstacles of cloud computing. 8
- 2 a. Illustrate the services offered by Amazon web services. 12
- b. Narrate the SaaS and PaaS services provided by Google. 8

UNIT - II

- 3 a. Explain various categories of existing cloud applications. 12
- b. Define workflow. Explain. 8
- 4 a. Illustrate the basic workflow patterns with respective to figures. 12
- b. Explain Map-reduce Philosophy. 8

UNIT - III

- 5 a. What is virtual machine? Explain Traditional, Hybrid and Hosted virtual machine. 12
- b. Discuss full virtualization and para virtualization. 8
- 6 a. Explain any five problems faced by virtualization of the X86 architecture. 10
- b. Write a note on the following :
- i) Virtual Machine Monitors (VMM) 10
- ii) Software Fault Isolation

UNIT - IV

- 7 a. Explain five classes of cloud resource management policies. 10
- b. With the help of a diagram, explain two-level resource allocation architecture. 10
- 8 a. Explain the ASCA combinatorial auction algorithm. 10
- b. Explain Start-Time Fair queuing algorithm. 10

UNIT - V

- 9 a. Explain the Fibre channel Protocol layers and give its frame format [FC frame format]. 12
- b. Illustrate the configuration of general parallel file system. 8
- 10a. Explain the architecture of GFS cluster. 10
- b. Write a note on the following :
- i) Cloud security risks 10
- ii) Trust