

<b>Name:</b>	 <b>UPES</b> UNIVERSITY WITH A PURPOSE
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2019**

**Course: Cloud Performance Tuning**  
**Program: B. Tech (CSE +CCVT)**  
**Course Code: CSIB491**

**Semester: VII**  
**Time 03 hrs.**  
**Max. Marks: 100**

**Instructions: Attempt all the Question**

**SECTION A**

S. No.	Question	Marks	CO
Q 1	Discuss the Brute force method, for analyzing and identify the bottleneck in the process.	4	CO1
Q 2	Define term Load balancing and state its significance in the cloud performance tuning.	4	CO2
Q 3	Write the steps for hosting a VM and giving access to guest, with one example.	4	CO3
Q 4	Define WebSphere and its significance with example	4	CO4
Q 5	Discuss the role of real time Scheduling in operating system tuning.	4	CO2

**SECTION B**

Q 6	Discuss the role of resource provisioning and monitoring in cloud performance tuning.	10	CO4
Q 7	Explain the role of NUMA architecture.	10	CO3
Q 8	How to manage memory in VM, discuss with one suitable example	10	CO3
Q 9	Demonstrate the importance of Application Server Tuning. Or Discuss the role of Kernel I/O in operating system tuning.	10	CO2

**SECTION-C**

Q 10	Notes on  a) Brute force Method b) CRM c) Amdahl's Law	(7.5+7.5+5)	CO1
Q 11	Let a program has 40 percent of its code enhanced (so $fE = 0.4$ ) to run 2.3 times faster (so $fI = 2.3$ ). What is the overall system speedup $S$ ?  OR Let a program has a portion $fE$ of its code enhanced to run 4 times faster (so $fI = 4$ ), to yield a system speedup 3.3 times faster (so $S = 3.3$ ). What is the fraction enhanced ( $fE$ )	20	CO4

