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

(An Autonomous Institution affiliated to VTU, Belagavi)

Sixth Semester, B.E. - Computer Science and Engineering

Semester End Examination; August - 2023

Could Computing Platform

Time: 3 hrs *Max. Marks: 100*

Course Outcomes

The Students will be able to:

CO1: Understand Cloud Infrastructure of different service providers.

CO2: Explain Virtualization, Layering & virtualization and performance of virtual machines.

CO3: Describe the different modes of Cloud Resource Management and Scheduling.

CO4: Understand Google cloud platform and services.

CO5: Implement Google cloud platform and services.

***Note**: I) **PART - A** is compulsory. **Two** marks for each question.*

*II) **PART - B**: Answer any **Two** sub questions (from a, b, c) for a Maximum of **18 marks** from each unit.*

Q. No.	Questions	Marks	BLs	COs	POs
	I : PART - A	**10**			
1 a.	Describe Private cloud and Community cloud.	2	L2	CO1	PO2
b.	List any four problems faced by virtualization of x86 architecture.	2	L1	CO2	PO3
c.	List any four cloud resource management policy classes.	2	L1	CO3	PO3
d.	Explain the two main purposes why Google cloud client libraries expose their API?	2	L2	CO4	PO3
e.	Explain Virtual private cloud.	2	L2	CO5	PO3
	II : PART - B	**90**			
	UNIT - I	**18**			
2 a.	Explain the three delivery models of cloud computing.	9	L2	CO1	PO1
b.	Describe open-source software platforms for private clouds.	9	L2	CO1	PO1
c.	Explain the services accessible by the management console of AWS.	9	L2	CO1	PO2
	UNIT - II	**18**			
3 a.	Describe how virtualization empowers creation of malware and how they can be prevented?	9	L2	CO2	PO2
b.	Explain full virtualization and par virtualization.	9	L2	CO2	PO2
c.	Explain Xen hypervisor in detail.	9	L2	CO2	PO2
	UNIT - III	**18**			
4 a.	Explain the stability of two-level resource allocation architecture.	9	L2	CO3	PO3
b.	Describe feedback control based on dynamic thresholds.	9	L2	CO3	PO5
c.	Explain the following with respect to scheduling in cloud computing: i) Fair queuing ii) Start time fair queuing	9	L2	CO3	PO3

Contd…2

	UNIT - IV	**18**			
5 a.	Describe the following Google cloud services: i) Compute engine ii) Cloud storage iii) Cloud SQL	9	L2	CO4	PO3
b.	With suitable diagram, explain how task scheduling on compute Engine is done using cloud scheduler.	9	L2	CO4	PO3
c.	Explain in detail the storage services provided by Google cloud services.	9	L2	CO4	PO3
	UNIT - V	**18**			
6 a.	Describe VPC networks and its services.	9	L2	CO5	PO2
b.	Explain the working of cloud DNS long with diagram.	9	L2	CO5	PO2
c.	Describe the machine learning services and machine learning APIs.	9	L2	CO5	PO2

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