Walchand College of Engineering, Sangli											
(Government Aided Autonomous Institute) AY 2023-24											
Course Information											
Programme B.Tech. (Information Technology)											
Class,			Third Year B. Tecl								
Course											
Course Name			Open Elective - 1: Cloud Computing System								
Desired Requisites:			Computer Networks								
Teaching Scheme Examination Scheme (Marks)											
		g Scheme									
Lectur		3 Hrs/week	MSE	ISE	ESE	Total					
Tutori	ial	-	30	20	50	100					
		-		Credits: 3	3						
			~								
1	Tr.	atus during C 1		rse Objectives							
1 2			nentals of virtualizat		4:~						
3			ificance of virtualization	nt model in cloud compu	ung						
3	10 a) with Bloom's Taxono	my I aval						
At the	end o		students will be abl		my Level						
7 It the		the course, the	Bloom's	Bloom's							
CO		Cor	urse Outcome State	Taxonomy	Taxonomy						
				Level	Description						
CO1	~	Comprehend the fundamentals of cloud computation II									
COI	Com	prehend the fur	idamentals of cloud	computation	11	Understanding					
CO2	Cho	ose virtualizatio		oy the service on cloud	III	Applying					
CO2	Choo infra	ose virtualizatio structure	n techniques to depl	oy the service on cloud	III	Applying					
	Choo infra	ose virtualizatio structure		oy the service on cloud							
CO2	Choo infra Anal	ose virtualizatio structure	n techniques to depl	oy the service on cloud	III	Applying					
CO2	Choo infra Anal	ose virtualization structure lyze service modulization of troduction to	n techniques to depl dels for data centre a Modul Cloud Computing	oy the service on cloud applications e Contents	III IV	Applying Analysing Hours					
CO2 CO3	Choo infra Anal	ose virtualization structure lyze service modulized introduction to Virtualization and	n techniques to deplete dels for data centre a Modul Cloud Computing and Cloud Computing	oy the service on cloud applications e Contents , Cloud Reference Mode	III IV I: IAAS, PAAS	Applying Analysing Hours					
CO2	Choo infra Anal	ose virtualization structure lyze service moderate modera	m techniques to deployment dels for data centre a Modul Cloud Computing ad Cloud Computing eployment Model: P	oy the service on cloud applications e Contents	III IV I: IAAS, PAAS	Applying Analysing Hours					
CO2 CO3	Choo infra Anal	estructure lyze service moderate moder	n techniques to deplete dels for data centre a Modul Cloud Computing and Cloud Computing	oy the service on cloud applications e Contents , Cloud Reference Mode	III IV I: IAAS, PAAS	Applying Analysing Hours					
CO2 CO3 Modu	Choo infra Anal	estructure lyze service moderate and an arroduction to Virtualization and Cloud, Cloud Play	m techniques to deplete dels for data centre a Modul Cloud Computing and Cloud Computing eployment Model: Patforms in Industry	oy the service on cloud applications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud	III IV I: IAAS, PAAS and and Hybrid	Applying Analysing Hours 7					
CO2 CO3	Choo infra Anal	ose virtualization structure lyze service moderate modera	Modul Cloud Computing ad Cloud Computing eployment Model: P atforms in Industry are-Meta, Server	oy the service on cloud upplications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop	III IV I: IAAS, PAAS and and Hybrid	Applying Analysing Hours 7					
CO2 CO3 Modu	Choo infra Anal	ose virtualization structure lyze service moderate and to virtualization and SAAS, Cloud Play Virtualization Hosted and B	Modul Cloud Computing ad Cloud Computing eployment Model: P atforms in Industry are-Meta, Server ualization, Storage V	oy the service on cloud upplications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop	III IV I: IAAS, PAAS and and Hybrid	Applying Analysing Hours 7					
CO2 CO3 Modu I	Choo infra Anal	ntroduction to Virtualization SAAS, Cloud De Cloud, Cloud Pla Virtualization Hosted and B Application Virtualization Network Function	Modul Cloud Computing ad Cloud Computing eployment Model: P atforms in Industry are-Meta, Server ualization, Storage V ions	oy the service on cloud upplications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop	III IV I: IAAS, PAAS and and Hybrid Virtualization	Applying Analysing Hours 7					
CO2 CO3 Modu	Choo infra Anal	ose virtualization structure lyze service moduration to virtualization and SAAS, Cloud Play virtualization Hosted and Bapplication Virtualization Virtualiza	Modul Cloud Computing and	oy the service on cloud applications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop Virtualization Content Delivery Networtions: Cloud Firewall, D	III IV I: IAAS, PAAS and and Hybrid Virtualization	Applying Analysing Hours 7					
CO2 CO3 Modu I	Chood infra	ose virtualization structure lyze service moduration to virtualization and AAS, Cloud Playirtualization Hosted and Bapplication Virtualization Virtualizatio	Modul Cloud Computing and Cloud Computing and Cloud Computing and Cloud Computing and Cloud Computing appropriate Model: P atforms in Industry are-Meta, Server alization, Storage V ions tworking: Route53, irtual Network Function Systems	oy the service on cloud applications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop Virtualization Content Delivery Networtions: Cloud Firewall, D	III IV I: IAAS, PAAS and and Hybrid Virtualization	Applying Analysing Hours 7					
CO2 CO3 Modu I II III	Choo infra Anal	ntroduction to Application Virtualization Virtualiz	Modul Cloud Computing and Cloud Computing and Cloud Computing and Cloud Computing apployment Model: Patforms in Industry are-Meta, Server aualization, Storage Valors atworking: Route53, irtual Network Function Detection Syste Clouds (VPC)	oy the service on cloud applications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop Virtualization Content Delivery Networtions: Cloud Firewall, Deskip Desktop Misservice Cloud Content Delivery Networtions: Cloud Firewall, Deskip Desk	III IV I: IAAS, PAAS and and Hybrid Virtualization rks, Resilience NS, Load	Applying Analysing Hours 7 6					
CO2 CO3 Modu I	Choo infra Anal	ose virtualization structure lyze service modular structure lyze service modular structure lyze service modular struction and structure ly light structure ly light structure, Valancers, Intrustructure ly light structure ly	Modul Cloud Computing and Cloud Computing are-Meta, Server analyzation, Storage V and Storage V	oy the service on cloud applications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop Virtualization Content Delivery Networtions: Cloud Firewall, Desk of the Subnets, Security Gro	III IV I: IAAS, PAAS and and Hybrid Virtualization rks, Resilience NS, Load	Applying Analysing Hours 7					
CO2 CO3 Modu I II III	Choo infra Anal	ose virtualization structure lyze service modular structure ly	Modul Cloud Computing and Cloud Computing atforms in Industry are-Meta, Server analization, Storage V ions atworking: Route53, artual Network Function Detection Syste Clouds (VPC) als, Public and Priva List, Network Addre	oy the service on cloud applications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop Virtualization Content Delivery Networtions: Cloud Firewall, Desk of the Subnets, Security Gro	III IV I: IAAS, PAAS and and Hybrid Virtualization rks, Resilience NS, Load	Applying Analysing Hours 7 6					
CO2 CO3 Modu I II III	Chood infra	ose virtualization structure lyze service modular methoduction to virtualization and SAAS, Cloud Playirtualization Hosted and Bapplication Virtualization Vi	Modul Cloud Computing and Cloud Computing and Cloud Computing and Cloud Computing apployment Model: P atforms in Industry are-Meta, Server alization, Storage V ions tworking: Route53, irtual Network Function Detection Syste Clouds (VPC) als, Public and Priva List, Network Addre ment	oy the service on cloud upplications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop Virtualization Content Delivery Networtions: Cloud Firewall, Destroys: Cloud Firewall, Descriptions: Cloud Firewall, Desc	III IV I: IAAS, PAAS and and Hybrid Virtualization rks, Resilience NS, Load ups, Network	Applying Analysing Hours 7 6 7					
CO2 CO3 Modu I II	Choo infra Anal	ntroduction to Artualization AAS, Cloud De Cloud, Cloud Pla Airtualization Application Virtualization Hosted and B Application Virtualization Virtualization Active Function Virtual Private Access Control I	Modul Cloud Computing and Cloud Computing and Cloud Computing and Cloud Computing apployment Model: P atforms in Industry are-Meta, Server alization, Storage V ions tworking: Route53, irtual Network Function Detection Syste Clouds (VPC) als, Public and Priva List, Network Addre ment	oy the service on cloud applications e Contents , Cloud Reference Mode ublic Cloud, Private Cloud Virtualization, Desktop Virtualization Content Delivery Networtions: Cloud Firewall, Destroys: Translation. te Subnets, Security Gross Translation.	III IV I: IAAS, PAAS and and Hybrid Virtualization rks, Resilience NS, Load ups, Network	Applying Analysing Hours 7 6					

VI	Open Source and Commercial Clouds, Cloud Simulator, Research trend in Cloud Computing, Fog Computing	6								
Text Books										
1	Rajkumar Buyya, Christian Vecchiola, S. Thamarai Selvi, "Mastering cloud computing", McGraw Hill Education, 3rd Edition, 2011									
2	Thomas Erl, Zaigham Mahmood and Ricardo Puttini, "Cloud Computing: Concepts, Technology & Architecture", Pearson, 1st Edition, 2010									
References										
1	Richardo Puttini, Thomas Erl, and Zaigham Mahmood, "Cloud Computer Technology & Architecture", Pearson Prentice Hall, 2nd edition, 2013	ting: Concepts,								
2	Srinivasan, J. Suresh, "Cloud Computing: A practical approach for implementation", Pearson, 2nd Edition, 2012	learning and								
Useful Links										
1	Module: I, II, IV, V, VI https://nptel.ac.in/content/syllabus_pdf/106105167.pdf									
2	https://aws.amazon.com/									

CO-PO Mapping															
	Programme Outcomes (PO)											PSO			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	1		2										2		
CO2			3												
CO3	2													3	

The strength of mapping is to be written as 1: Low, 2: Medium, 3: High Each CO of the course must map to at least one PO.

Assessment

The assessment is based on MSE, ISE and ESE.

MSE shall be typically on modules 1 to 3.

ISE shall be taken throughout the semester in the form of teacher's assessment. Mode of assessment can be field visit, assignments etc. and is expected to map at least one higher order PO.

ESE shall be on all modules with around 40% weightage on modules 1 to 3 and 60% weightage on modules 4 to 6.

For passing a theory course, Min. 40% marks in (MSE+ISE+ESE) are needed and Min. 40% marks in ESE are needed. (ESE shall be a separate head of passing)