

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, July 2020

Course: Cloud Deployment Model

Semester: VI

Programme: B Tech CCVT

Code: CSVT3002 & CSIB378

Time: 02 hrs

Max. Marks: 60

NOTE: Exam conducted on Blackboard. The following is the extract of format and questions.

Random Block – CO1 – Total Question 13 – Display any 4 – Marks for each Question 1

- | | |
|----|--|
| TF | WantQuickBuck.com is a money-rotation consulting app start-up who wants to put all their infrastructure in cloud so that they can start getting return on their investments quickly. They are going in right direction.
TRUE FALSE |
| MC | Alchemist.com wants to keep its AI based Elixir Algorithm to suggest life extending solutions based on life style data. You are their cloud implementation expert. Which cloud implementation you will suggest for their solution hosting?
Private Cloud Correct Public Cloud Incorrect SaaS Incorrect Community Cloud Incorrect |
| MC | As a Chief Consultant of CloudWizards consulting, your customer CarefulInvesting.com – startup with moderate upfront investment – wants to know all factors that will impact their operations cost. They have included all hardware, software and network cost including AMC for it. They want you to validate and confirm if everything is covered. Your answer is:
Well, you have covered almost everything. No major cost is missing. Incorrect
I guess, but for costing for staff to run the services, you have covered everything. Incorrect
Looks like you have missed multiple major cost items like facilities and business continuity, and such. Correct |
| TF | EnigmaEncryption.com needs 17 different test setup before a new crypt can be made available to its customers. In order to save test setup time they want to move their cloud based testing to their in-house data center on dedicated servers so that they can speed up the testing. This is a correct decision. FALSE TRUE |
| TF | KeepYouKicking Medical Services from New York is evaluating BigDeeBee.Com's premium Oracle Grid Service. They will be interested in using this service as it gives very sophisticated connectivity protocol for connecting into their network as it is considered nearly 90% secure FALSE TRUE |
| MC | LalaKiDukan is small grocery shop that went .com with online app to cater for delivery to local community. Due to good pricing and fast delivery services their online business has grown four times in last 2 years! While Lala invested substantial amount in its IT infrastructure now it is facing order fallout and response time issues due to server performance. A local IT services vendor GarageIT is selling the idea moving the setup to private cloud using services from GarageIT so that LalaKiDukan will be able to maximize its IT infra and partly address performance issues. Do you think LalaKiDukan.com should move to private cloud setup? Yes Correct No Incorrect |
| MC | LalaKiDukan is small grocery shop that went .com with online app to cater for delivery to local community. It is able to run its business with local servers setup and filing taxes and other statutory/governmental requirements properly for last 2 years. A local IT services vendor GarageIT is selling the idea moving the setup to private cloud using services from GarageIT so that LalaKiDukan will have no problems with tax filing and sales tax reporting. Do you think LalaKiDukan.com should move to private cloud setup? No Correct Yes Incorrect |
| TF | Large companies are moving their infrastructure from Public Cloud to Private Cloud due to DevOps practices
TRUE FALSE |
| MC | Mama-Ki-Dukan is small, successful and cash-rich grocery shop competing with LalaKiDukan.com, however, Mama has NO online presence. Mama decides to go online and consults GarageIT, a local IT service provider. GarageIT analyzes the requirements and finds out cost of setting up an in-house solution is LESS than setting up Mama's business on public cloud and running it for 3 years. Mamaji calls you and asks your opinion if he should move to public cloud or private cloud? In the given scenario, what will you recommend? Private Cloud Correct Public Cloud Incorrect Hybrid Cloud Incorrect Community Cloud Incorrect |
| TF | Mr Smith is using Web Hosting Services for his customer's advertisements from Door Inc, a very good service provider. Mr Smith will have to ask his IT team to monitor all the hard disk alerts coming from the web servers given by Door Inc. FALSE TRUE |

TF	Once you have setup the network, hardware and software and established security measures you are good to start operations of your private cloud.	FALSE TRUE
TF	State True or False: DarkKnights.com do not want to build their services on cloud but put on in-house data center because their services are used mostly during night and they believe they will be able to save money as night time cloud services rentals will be higher.	FALSE TRUE
TF	The first and most important thing in building a private cloud is to identify the hardware, software and network infrastructure that is required to setup the private cloud.	FALSE TRUE
Random Block – CO2 – Total Question 17 – Display any 6 – Marks for each Question 1		
MC	As a Chief Consultant of CloudWizards consulting, your customer WillMakeMoneySomeday.com – startup with no outside funding and little upfront investment – wants to know – Which cloud model they should adopt? Your answer is: Gentlemen, private cloud is best for you. Correct My friend, Hybrid cloud is the safest bet.	Incorrect Ma'am and Sir, please go for public cloud Incorrect
TF	BholeNath.com – a private detective company App – is moving to Cloud based platform. They believe all their client information security problems will be solved.	FALSE TRUE
TF	BigDeeBee.Com is offering Bigdata-In-Hadoop-On-Cloud Services that requires the end users from its customer organization to log in using BigDeeBee.Com's two-factor authentication for security reasons. Ms Marple of Fumbling Detective Services, who is evaluating this service will find this perfect for its detective staff.	FALSE TRUE
MA	ChhotaMota International Group has multiple companies in all sizes having wide variety of information extraction needs in all formats. They find Microsoft's Azure solution very useful because They can host different types of Databases on different DB solutions Correct They can store and analyze data using right size and type solutions Correct They can use various media services Correct Microsoft is the targets software vendor on earth Incorrect They have good experience with Microsoft Windows Incorrect	
TF	DontDie.com – is an emergency life support services app. It wants to move its application infrastructure to an Andaman based cloud service provider with solo data center in Port Blair in order to make sure their app is always available to its users with no down time. This is off course a safe and sure move.	FALSE TRUE
TF	A company is using a SaaS application from a public vendor, the sensitive data about competition is stored in its internal data center. Q: Does the Organization have hybrid environment in the scenarios ?	TRUE FALSE
MC	A private cloud that is extending its boundary into a third party cloud environment to obtain additional (or non-mission critical) resources in a secure and on-demand manner. This is a property of:	Hybrid Cloud Correct Public Cloud Incorrect PaaS Incorrect SaaS Incorrect
TF	Data Management in Hybrid Cloud is easier than that in Private Cloud.	FALSE TRUE
TF	Hybrid Cloud helps in making best out of already made investment in existing infrastructure.	TRUE FALSE
TF	Hybrid Cloud makes application design simple and easy to implement.	FALSE TRUE
TF	Integration of existing system, such as user management, security and governance introduces additional complexity in Hybrid Cloud implementation.	TRUE FALSE
TF	Jagannath Rulduram and Sons quickly wants to offer online services for his departmental store to its customers so that they can quickly stop losing customers to Amazon.com and Flipkart. They are deciding to build their own app using UPES students start up BobTheBuilder.Com as against using ReadyToSell.Com's retail public cloud based platform because UPES students are very smart. It is a very good decision.	FALSE TRUE
TF	Kaa.Com is not able to migrate to Microsoft's Azure as all their in-house build and test platforms are on Linux, as they don't want to move their platforms to Windows.	FALSE TRUE
MC	PrudentBank is convinced that your start-up will be profitable and has agreed to invest \$10 million but agreed to give in first year 30% second year 25% and 15% each next three year. With all the money in hand where will you put your app on:	Private Cloud Incorrect Hybrid Cloud Incorrect Community Cloud Incorrect Public Cloud Correct
TF	Ramanbhai Toastwala wants to use RedyToSell.Com's retail public cloud based platform for their bakery products. They want to negotiate monthly rentals against per-transaction charges as they are not expecting very high sales during initial period. This is very economic and wise approach.	FALSE TRUE
TF	RichieRich.com CTO Mr Wise invested hundred million dollars in setting up best in class tier 1 data center for their diamond-platinum jeweler business. Within one year they opened up multiple branches. The consultant Mr Brilliant tells Mr Wise to move their applications from dedicated servers to virtualized machines in order to support growth and therefore move to AWS based services. It is the only good option.	FALSE TRUE
TF	Underworld.com is dealing in buying and selling rare goods from East Europe, Middle East, South East Asia, China and South America from a single platform that is based on cloud. They believe this will solve all their taxation and import-export regulation related difficulties. It is indeed a wise decision.	FALSE TRUE
Random Block – CO3 – Total Question 33 – Display any 16 – Marks for each Question 1		

TF	The integrated tool to create, configure and control most of the services in OpenStack is Horizon	TRUE	FALSE
MC	The sequence of operations in RPC is GET -> PUT -> PATCH -> POST -> DELETE	Incorrect	Call -> Pack -> Send -> Receive -> Unpack -> Call -> Return -> Pack -> Send -> Receive -> Unpack -> Return
TF	All internal Nova components use HTTP based messaging service.	False	TRUE FALSE
TF	In order to compute service work seamlessly and effectively it is essential that Nova is setup with one and only one hypervisor, preferably KVM.	FALSE	TRUE
TF	Cinder by default uses LVM for back-end-storage service	TRUE	FALSE
TF	Cinder is block storage service that can provision shareable block storage across multiple VMs created using compute.	FALSE	Ture
MC	Cinder is not a mandatory service because, tick the right answer: Cinder is object storage service and you can setup cloud without object storage	Incorrect	Cinder is a mandatory service and not an optional service
		Incorrect	Cinder gives block storage and compute can use other block storage services
TF	Cinder provides components to increase service reliability like HA and Backup.	TRUE	FALSE
TF	Cinder supports Advanced Message Queuing Protocol for all external communication outside Cinder and within Cinder components it uses RESTful APIs	FALSE	TRUE
TF	Amazon EBS is similar to OpenStack Swift Service	FALSE	TRUE
TF	You can also use Object Storage for Virtual Machine Images and Backup Images	TRUE	FALSE
MC	Access management services in OpenStack is given by: Nova	Incorrect	Glance
	Keystone	Correct	Horizon
		Incorrect	
TF	Identity Service - Keystone, and, Dashboard Service - Horizon are two shared services across OpenStack services	TRUE	FALSE
MC	In OpenStack the Identity and User Access service is provided by	IAM	Incorrect
		UAM	
		Incorrect	Keystone
		Correct	Ironic
		Incorrect	
TF	In order to optimize its performance Cinder makes it mandatory to support a single vendor storage system.	FALSE	TRUE
TF	Manila provides Object Storage Service in OpenStack	FALSE	TRUE
MA	Ms Marple's Fumbling Detective Services is wanting to use BigDeeBee.Com's Bigdata-In-Hadoop-On-Cloud Services for its Case Investigation Data store for all unstructured data. Ms Marple will be considering the following aspects of BigDeeBee.Com's Services:	BigDeeBee.Com gives facility to expand storage capacity on fly	Correct
		Granularity of charging for storage is NOT important	Incorrect
		BigDeeBee.com has a toll free support that works on Monday to Thursday from 12 Noon to 3PM	Incorrect
		BigDeeBee.Com gives facility to download data into multiple Bigdata format	Correct
TF	Nova component Scheduler is responsible for interfacing with hypervisor and creating the VMs.	FALSE	TRUE
MC	Nova interacts with external services to complete its function. Which of the following service in NOT involed in this process?	Keystone	Incorrect
		Neutron	Incorrect
		Placement	Incorrect
		Swift	Correct
		Glance	Incorrect
TF	Nova interfaces with all external services using RPC based communication service.	FALSE	TRUE
MC	Nova requires swift service as mandatory service, because:	Swift provides OS images to Nova	Incorrect
		Swift provides basic storage required to install host OS for VM	Incorrect
		Swift in NOT a mandatory service	Correct
TF	Nova uses REST API for internal communication between Conductor, Schedule, API etc	FALSE	TRUE
TF	Nova uses RPC for interaction with Keystone, Glance and other external OpenStack services.	FALSE	TRUE
TF	OpenStack Cinder is equivalent to Amazon S3 Service	FALSE	TRUE
TF	OpenStack enables creation of virtual IT resources via a GUI and there is no other alternate way to use the OpenStack services.	FALSE	TRUE
TF	OpenStack Nova can create VMs only using KVM Hypervisor	FALSE	TRUE
TF	OpenStack provides all the services that are required for implementation of IaaS, PaaS and SaaS	FALSE	TRUE
MC	OpenStack services can be used via:	Dashboard	Incorrect
		API	Incorrect
		CLI Interface	Correct
		All of the above	Correct
TF	REST APIs are stateless API interface	TRUE	FALSE

TF	Using Object Storage you can manage complex file systems with multiple data types	FALSE	TRUE
MC	Which of the following component does NOT belong to a compute node in OpenStack implementation?	KVM Hypervisor	Incorrect
	Compute Service	Incorrect	Telemetry Agent
	Network Management	Correct	Incorrect
MC	Which of the following is/are not mandatory projects in OpenStack	Horizon	Incorrect
	Cinder	Incorrect	Ironic
		Incorrect	All of the above
		Correct	
MC	Which of the following services in NOT related to storage in OpenStack	Manila	Incorrect
	Incorrect	Swift	Incorrect
		Designate	Correct
		Cinder	Incorrect
Random Block – CO4 – Total Question 21 – Display any 10 – Marks for each Question 1			
TF	Application layer examples in SDN Networks – tick correct one:	Traffic Forwarding	Incorrect
	Configuration of Networking Devices	Incorrect	Load Balancer
		Correct	
MC	In a typical hardware deployment of OpenStack network node will have how many distinct network interfaces?	1	Incorrect
		2	Incorrect
		3	Correct
TF	In a typical hardware deployment of OpenStack you can have more than one nodes for compute, block storage and object storage.	TRUE	FALSE
TF	In a typical hardware deployment of OpenStack you can have only ONE Controller node.	TRUE	FALSE
MC	In OpenStack implementation which one of the following does NOT belong to Network Node?	neutron-DHCP agent	Incorrect
		neutron L3 agent	Incorrect
		neutron server	Correct
		neutron metadata agent	Incorrect
MC	In Self Service Network deployment option of OpenStack, Controller Node has one additional component and that is:	Networking Management Agent	Incorrect
		Networking L3 Agent	Correct
		Networking DHCP Agent	Incorrect
		Networking Metadata Agent	Incorrect
MC	SDN Controller interfaces with various north bound functions using:	Simple Network Management Protocol	Incorrect
		OSPF/BGP/Routing Protocols	Incorrect
		API	Correct
TF	SDN Controller resides in a specialized hardware that is custom designed to control network devices	FALSE	TRUE
TF	SDN helps in achieving greater flexibility in implementing networking in cloud environment however it comes at a very high cost.	FALSE	TRUE
TF	SDN offers highly structured architecture as the north bound and south bound interfaces are standardized and controlled with well documented and approved interfaces by SDN Forum.	FALSE	TRUE
TF	SDN provides centralized management of network that makes it highly vulnerable to security attacks.	FALSE	TRUE
TF	SDN while simplifies network management it introduces challenges that makes automation very difficult for network operations.	False	TRUE
TF	Splitting of "Control plane" and "data plane" is called integration in SDN.	FALSE	TRUE
MC	Which component of Neutron provides IP Address Service?	Network Service Provider	Incorrect
	L3 Agent	Incorrect	DHCP
		Correct	L2 Agent
		Incorrect	
MC	Which component of neutron provides Network Address Translation [NAT] service?	neutron-DHCP agent	Incorrect
	Incorrect	neutron L3 agent	Correct
		neutron server	Incorrect
		neutron metadata agent	Incorrect
MC	Which of the following is NOT provided by OpenStack Networking service?	IP address management	Incorrect
	Incorrect	DNS	Incorrect
		DHCP	Incorrect
		Load balancing	Incorrect
	above	Correct	None of the
MC	Which of the following network within OpenStack implementation is used for communication between OpenStack components?	Management Network	Correct
		External Network	Incorrect
		Guest Network	Incorrect
		API Network	Incorrect
TF	Having High Availability also takes care of Disaster Recovery and Business Continuity.	FALSE	TRUE
TF	In High Availability setup when primary system fails, secondary server present in same data center takes over the processing without loss of service	TRUE	FALSE
TF	It is also possible to put alternate site within same building complex and achieve Disaster Recovery	FALSE	TRUE
TF	It is enough to build alternate site in a different geographical location with server, storage and connectivity to achieve Disaster Recovery	FALSE	TRUE
Random Block – CO4 – Total Question 18 – Display any 8 – Marks for each Question 1			
MC	What type of counters does Telemeter supports: 1. Absolute values - Gauge; 2. Delta; 3. Cumulative	1 and 2	Incorrect
	Incorrect	2 and 3	Incorrect
		1, 2, 3	Correct
		1, 3	Incorrect

TF	Bare metal provisioning service Ironic does not depend upon any vendor specific management protocol. FALSE TRUE
TF	Heat Orchestration service lacks automation capability therefore each orchestration requires manual setup. FALSE TRUE
MC	In order to get name resolution done in openstack cloud setup you will need to setup which service? Swift Incorrect Trove Incorrect Neutron Incorrect Designate Correct
MC	You need all the usage statistics in order to do costing of service usage by your customers. You will need to implement and configure which service? Ironic Incorrect Ceilometer Correct Sahara Incorrect Horizon Incorrect
MC	Which of the following service provides Container-as-a-Service in OpenStack? Magnum Correct Ironic Incorrect Trove Incorrect Sahara Incorrect
MC	Which of the following service provides Data Processing-as-a-Service in OpenStack? Magnum Incorrect Ironic Incorrect Trove Incorrect Sahara Correct
MC	Which of the following service provides Database-as-a-Service in OpenStack? Magnum Incorrect Ironic Incorrect Trove Correct Sahara Incorrect
MC	Setting up Hadoop clusters are a common usage of cloud environment. Which OpenStack service provides this? Sahara Correct Manila Incorrect TripleO Incorrect Trove Incorrect
TF	Telemetry service covers Compute and Storage metrics but Network related metric is taken care by Neutron FALSE TRUE
TF	Telemetry service is responsible for measurements for maintenance of cloud BUT does NOT support BILLING related operations FALSE TRUE
MC	The OpenStack Management Service in OpenStack is called: Sahara Incorrect Manila Incorrect TripleO Correct Trove Incorrect
TF	The OpenStack Management Service uses a concept of "undercloud" to create and manage production clouds TRUE FALSE
TF	The production cloud created and managed by OpenStack Management Service is called "Overcloud" TRUE FALSE
MC	Which OpenStack service will you use to implement "Analytics as a Service"? Sahara Correct Manila Incorrect TripleO Incorrect Trove Incorrect
MC	In order to include a physical server in your virtualized cloud environment, which OpenStack service will you use? Magnum Incorrect Ironic Correct Trove Incorrect Sahara Incorrect
MA	Which of the following can help you in loading OS into a server from a remote network location instead of local disk? Tick ALL correct answers. BootP Correct Preboot Execution Environment Correct Intelligent Platform Management Interface Incorrect DHCP Incorrect
TF	Provisioning of OpenStack and Management of OpenStack installations can share same network in OpenStack on OpenStack component of OpenStack FALSE TRUE
Random Block – CO5 – Total Question 32 – Display any 16 – Marks for each Question 1	
TF	Containerization can make DevOps very difficult to implement. FALSE TRUE
TF	Containers are much more secure than Virtual Machines. FALSE TRUE
TF	DevOps essentially meanse putting Development and Operation teams into a single team so that they can work in same place. FALSE TRUE
MC	A start-up selling automation solution based on Chef needs to have their own local Chef setup. Which Chef server is suitable for them? Hosted Chef Incorrect Enterprise Chef Correct Open Source Chef Incorrect
MC	YoDood.com is social media start up for young college students that has seen phenomenal growth within first year of its launch that is hosted on public cloud. The students are demanding multiple features resulting in weekly release of new 4-5 small features every week. Tech-Dude at YoDood.com want to introduce a DevOps pipeline in their development and test environment. They call you and ask –"Yo! Nerdy-Dood, what should we do?" Your response is: Man, don't change a thing. With time things will fall in place. Incorrect Bhai, setup your DevOps pipeline on private cloud Correct Bro, I will come and setup everything on public cloud for you. Incorrect
MC	In order to improve on your SLAs for provisioning of new customers and the contracted services, which one should you automate first? Security Operations Incorrect Business Service Management Correct Resource Optimization Incorrect High Availability Operations Incorrect
MC	In order to improve your MTTR – Mean Time to Respond, MTTF – Mean Time to Fix and FCR – First Call Resolution – for your cloud services, your priority will be to automate? Automated service management Correct Intelligent allocation policies Incorrect Live migration to improve utilization Incorrect Smart

	power management policies Incorrect	Automate response actions with custom triggers and workflows Incorrect					
MC	In order to reduce your service issues due to system failuers – for your cloud services, your priority will be to automate? Self-healing triggers dynamically restore services Incorrect	Correct Intelligent allocation policies Live migration to improve utilization Incorrect	Automate response actions with custom triggers and workflows Incorrect	Smart power management policies Incorrect			
MC	One of the most common tool to achieve Continuous Integration and Continuous Deployment is: Jenkins Correct GitHub Incorrect	PHP Incorrect	.NET Incorrect				
TF	Power Management function automation can result in savings in operation cost.	TRUE	FALSE				
TF	Security related tasks like information protection, data integrity are out of scope of automation.	FALSE	TRUE				
TF	The idea of Microservice is to break complex service into small pieces with well defined interfaces that can be developed and deployed by different companies.	TRUE	FALSE				
TF	The ONLY difference between Virtualization and Containerization is introduction of Container Engine.	FALSE	TRUE				
MC	The VMware cloud operating system is called vFabric Incorrect	vCloud Director Incorrect	vSphere Correct				
TF	Using containerization one can achieve maximum utilization of compute resources.	TRUE	FALSE				
TF	While moving your legacy data center setup to a cloud environment it will be good to start with automating all the services.	FALSE	TRUE				
TF	With automation it is possible to achieve high level of SLA compliance.	TRUE	FALSE				
MC	Which of the following is NOT a containerization platform? Magnum Incorrect	Dockers Incorrect	OpenStack Correct				
MC	Which of the following is NOT an automation tool for Cloud Environment? Incorrect	Puppet Incorrect	Ansible Incorrect	Salt Incorrect Chef Correct None of the above Correct			
TF	vCloud Connector provides Single-pane-of-glass UI for viewing, migrating and operating on workloads.	TRUE	FALSE				
MA	Tick the disadvantages of Containers. Tick ALL correct answers isolation Correct	Inadequate Monitoring Correct	Not many features Correct	Security Concern Correct Lack of Correct			
TF	A package of the application files, dependencies and libraries of an application that can run on an OS independently is called virtualization	FALSE	TRUE				
MA	Benefits of containers include? Tick all applicable. Version Control Correct	Speed Correct	Security Incorrect	Portability Correct Cost efficient Correct Monitoring Incorrect			
MC	vCloud Director provides the following service. Tick correct ONE. Correct	Hardware-defined-SDN-Services Incorrect	Physical Data Center Creation Incorrect	Software-defined datacenter services Correct Cloud without Hardware Incorrect			
MC	Which vmware tool will you use to automate orchestration? vDirector Incorrect	vCloud Connector Incorrect	vSphear Correct	vFabric Incorrect			
MC	Which vmware tool will you use to manage your private and public cloud infrastructure? vSphear Incorrect	vDirector Incorrect	vCloud Connector Correct	vFabric Incorrect			
MA	Which of the following are automation tools that can be used for automating tasks in cloud environment? Tick ALL correct answers. Incorrect	Chef Correct	Puppet Correct	Salt Correct	Ansible Correct	Java Correct	C# Incorrect
TF	Chef uses RCP for executing automation scripts on any host without using any component residing on host.	FALSE	TRUE				
MC	Which Chef component will you use to develop your automation scripts? Incorrect	Repo Incorrect	Node Incorrect	Workstation Correct	Server Correct		
MC	Which Chef component will you use to deploy a cookbook using CLI? Incorrect	Repo Incorrect	Node Incorrect	Workstation Incorrect	Server Correct		
MC	Chef cookbooks are authored using which programming language? Correct	Shell Script Incorrect	Diamond Incorrect	Python Incorrect	Ruby Correct		
TF	You can develop your automation scripts and make it available to others using a common platform provided by Chef?	TRUE	FALSE				