Unit 5 cloud computing

1. Differentiate between Amazon and google and azure (10 marks)

AWS.

-Virtual machines running in Amazon Web Services are called Elastic Compute Cloud (EC2) instances

-provides Amazon Elastic Container Registry, Amazon Elastic Container Service, and Amazon Elastic Kubernetes Service.

-Amazon S3 is an object-level storage service. All files and folders are stored as objects in Simple Storage Service (S3) buckets.

-core networking services use an internal architecture called a virtual private cloud (VPC), which is a completely isolated logical network.

-AWS provides the AWS Network Firewall, a managed service that can be managed in AWS Firewall Manager.

-AWS uses security isolation as the default principle when you create an account, a virtual machine, or other objects to protect cloud resources against unauthorized access.

-Amazon provides over 80 availability zones in 25 geographic regions.

Azure

-You can run Azure virtual machines in the Azure cloud. One of the main advantages of Azure virtual machines is that they use real processor cores.

-has two container services: Azure Kubernetes Service (AKS) and Azure Container Service (ACS)

-*Azure Files* is a universal storage service to share files with virtual machines running in Azure and local machines running on-site.

-The internal architecture of **Azure** networks is closer to the traditional network architecture of data centers and private networks.

-Azure firewall services include Azure Firewall Premium, Azure Application Gateway, and Azure Web Application Firewall.

-One of the most popular security features of the Azure cloud platform is the Azure Active Directory.

-**Azure.** There are more than 60 regions in Azure with at least 3 availability zones per region.

Google

-Uses Google Compute Engine to run virtual machines in Google Cloud Platform.

-Played an important role in developing Kubernetes for container orchestration and, as a result, Google Cloud Platform has good support for Kubernetes and Docker containers.

-*Persistent disks* are block storage for virtual machines running in the Google Cloud (Google Cloud Compute Engine).

-uses the Andromeda architecture for networking. This is Google's network virtualization stack.

-Google Cloud also provides a firewall.

-Google Cloud Platform is more centralized, similar to Azure.

Google Cloud Platform. There are 24 regions and 73 availability zones.

1. List and explain the features of google app engine
   Ans : -
   • Write code once and deploy Provisioning and configuring multiple machines for web serving and data storage can be expensive and time-consuming. Google App Engine makes it easier to deploy web applications by dynamically providing computing resources as they are needed.
   • Absorb spikes in traffic When a web app surges in popularity, the sudden increase in traffic can be overwhelming for applications of all sizes, from startups to large companies that find themselves re-architecting their databases and entire systems several times a year. With automatic replication and load balancing,
   • Easily integrate with other Google services It's unnecessary and inefficient for developers to write components like authentication and email from scratch for each new application. Developers using Google App Engine can make use of built-in components and Google's broader library of APIs that provide plug-and-play functionality for simple but important features.

2. EMC and its fields of expertise

• Archiving Creating accessible online archives that offer a reduced operational cost by shrinking backup windows and making restores faster.
• Backup and recovery Different tools combine EMC's recovery management offerings, backup technologies, and management strategies to ensure that you have a solid backup and recovery practice.
• Enterprise content management Content-enabled solutions help mitigate risk without imposing overly complex technologies on your organization.
• Intelligent information management Using various technologies allows organizations to discover, store, and act on information in intelligent ways.
• IT management IT management is simplified and its cost reduced through automation, virtualization, and process efficiencies.
• Replication Data protection and remote replication technologies provide disaster recovery options.
• Security Organizations can deploy products with capabilities for access control, data protection, and auditing..
• Storage Processes and technologies that help manage data and efficiently maintain it.
• Virtualization Products including VMware backup and other EMC virtualization tools
improve the management and flexibility for virtual infrastructures.

3. list and explain azure service components

Windows Azure

Windows Azure is a cloud-based operating system that enables the development, hosting,
and service management environment for the Azure Services Platform. Windows Azure
gives developers an on-demand compute and storage environment that they can use to host,
scale, and manage web applications through Microsoft datacenters.

SQL Services

Microsoft SQL Services extends SQL Server capabilities to the cloud as web-based services.
This allows the storage of structured, semistructured, and unstructured data. SQL Services

delivers a set of integrated services that allow relational queries, search, reporting, analytics,
integration, and synchronization of data. This can be done by mobile users, remote offices,
or business partners.

.NET Services

Microsoft .NET Services are a set of Microsoft-hosted, developer-oriented services that
provide the components required by many cloud-based and cloud-aware applications.

Windows Live

Windows Live is an integrated set of online services that makes it easier and more fun for
consumers to communicate and share with others. The new generation of Windows Live
includes updated experiences for photo sharing, email, and instant messaging
Live Services is a development center and supplier of software development kits for Windows Live and Azure Services platforms. It gives information about getting started
with Windows Live services, current documentation and APIs, and samples.

4. explain in brief some of amazons technologies

Amazon Elastic Compute Cloud (Amazon EC2)

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that offers resizable
compute capacity in the cloud and is designed to make web scaling easier for developers.
Amazon EC2 provides a simple web interface that allows you to obtain and configure
capacity with little difficulty.

Amazon SimpleDB

For database services, Amazon offers its Amazon SimpleDB. It provides core database
functions of data indexing and querying. This service works closely with Amazon Simple
Storage Service (Amazon S3) and Amazon EC2. This provides the ability to store,

process,
and query data sets in the cloud.

Amazon Simple Storage Service (Amazon S3)

Amazon Simple Storage Service (Amazon S3) is Amazon's storage solution for the Internet.
It is designed to make web-scale computing easier for developers. It gives developers access
to the same data storage infrastructure that Amazon uses to run its own retail empire.

Amazon CloudFrontAmazon CloudFront is a web service for content delivery. It works in conjunction with other
Amazon Web Services to give developers and businesses an easy way to distribute content
to clients. Amazon promises low latency, high data transfer speeds, and no commitments.

Amazon Simple Queue Service (Amazon SQS)

Amazon Simple Queue Service (Amazon SQS) offers a scalable, hosted queue for storing
messages as they travel between computers. Developers can move data between distributed
components of their applications that perform different tasks, without losing messages or
requiring each component to be always available.

Elastic Block Store

Amazon also launched its Amazon Elastic Block Store (Amazon EBS), a persistent storage
feature for the Amazon EC2. Amazon EC2 is an infrastructure service that provides resizable compute capacity in the cloud.

5. explain components of saleforce CRM

• Sales

Easily the most popular cloud computing sales application, Salesforce.com
says that CRM Sales is used by more than 1.1 million customers around the world.
Its claim to fame is that it is comprehensive and easy to customize.

• Marketing

With Salesforce.com CRM Marketing, marketers can put the latest web

technologies to work building pipeline while collaborating seamlessly with their sales organization. The application empowers customers to manage multichannel campaigns and provide up-to-date messaging to sales.

• Service

The Service Cloud is the new platform for customer service. Companies can tap into the power of customer conversations no matter where they take place. Because it's on the Web, the Service Cloud allows companies to instantly connect to
collaborate in real time, share sales information, and follow joint processes.

• Collaboration

Salesforce.com CRM can help an organization work more efficiently with customers, partners, and employees by allowing them to collaborate among themselves in the cloud.

• Analytics

Force.com offers real-time reporting, calculations, and dashboards so a business is better able to optimize performance, decision making, and resource allocation.

• Custom ApplicationsCustom applications can be quickly created by leveraging one data model, one sharing model, and one user interface

6. Explain some of the features of IBM cloiud

IBM offers cloud computing services to help businesses of all sizes take advantage of this
increasingly attractive computing model. IBM is applying its industry-specific consulting
expertise and established technology record to offer secure services to companies in public,
private, and hybrid cloud models.
Some of their features include

• Industry-specific business consulting services for cloud computing IBM Global Business Services uses an economic model for assessing the total cost of ownership
for building private clouds, and/or moving data and applications off-site in a public or hybrid cloud model.

• Technology consulting, design, and implementation services IBM Global Technology Services offers services to help clients install, configure, and deliver

cloud computing inside the datacenter.

• Cloud security Spanning IBM Systems, Software, Services and IBM's Research and X-Force arms, this effort is aimed at re-architecting and redesigning technologies and processes, to infuse security and shield against threats and vulnerabilities in the cloud.

7. what is amazon ec2

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that offers resizable
compute capacity in the cloud and is designed to make web scaling easier for developers.
Amazon EC2 provides a simple web interface that allows you to obtain and configure
capacity with little difficulty. It allows you control of your computing resources. Amazon
EC2 cuts the time it takes to obtain and boot new server instances to a few minutes, allowing you to change scale as your needs change.
Amazon EC2 allows you to run Windows-based applications on Amazon's cloud computing platform. This might be web sites, web-service hosting, high-performance
computing, data processing, media transcoding, ASP.NET application hosting, or any other
application requiring Windows software.
EC2 also supports SQL Server Express and SQL Server Standard and makes those
offerings available to customers on an hourly basis.

8. the key features of the online standard version of exchange online

These are the key features of the online standard version of the solution:

• A 5GB mailbox (additional storage available for purchase—up to 25GB), sharedcalendar, contacts, tasks
• Outlook Client Connectivity including Outlook Anywhere
• Outlook Web Access
• Virus/spam filtering via Exchange Hosted Filtering
• Push email for Microsoft Windows Mobile 6.0/6.1 and Exchange ActiveSync 12 devices
• Email synchronization for Nokia E series and N series and iPhone 2.0

• Built-in business continuity and disaster recovery capabilities
• Scheduled uptime of 99.9 percent with financially backed service level agreements
• Use of HTTPS to help keep Internet access secure
• Tier 2 support 24/7 (web form and phone based) for IT administrators
• Sign-In Tool for single sign-on capability
• Directory Synchronization Tool to help keep on-premise and online Active Directories in sync
• Coexistence, or the ability for some users to be on mail servers on premises and for
some to be online
• Migration Tools to help you move your current mailbox data into the online environment

9. wrie a note on microsoft dynamic crm

Microsoft Dynamics CRM Online is an on-demand customer relationship management
service hosted and managed by Microsoft. The Internet service delivers a full suite of
marketing, sales, and service capabilities through a web browser or directly into Microsoft
Office and Outlook. It provides “instant-on” access to businesses that want a full-featured
CRM solution with no IT infrastructure investment or setup required.
Microsoft Dynamics CRM Online supplements Microsoft’s software plus services strategy for delivering integrated business solutions over the Internet, and it is a part of
Microsoft Dynamics CRM Online is initially packaged in two service offerings:
• Microsoft Dynamics CRM Online Professional delivers a full suite of CRM capabilities with extensive configurability and extensibility options. Businesses get 5GB of data storage, 100 configurable workflows, and 100 custom entities.
• Microsoft Dynamics CRM Online Professional Plus delivers all the capabilities of the Professional version plus offline data synchronization with expanded data storage, workflow, and customization options that give businesses 20GB of data storage, 200 configurable workflows, and 200 custom entities