



**NAVVRACHANA
UNIVERSITY**
a UGC recognized University

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Program/s: Btech –Information Technology
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Course Code: IT213 **Course Name:** Cloud Computing
Date: 07/12/2021
Time: 08:30 am to 10:30 am

Total Marks: 40
Total Pages: 03

Instructions:

- Write each answer on a new page.
- Use of a calculator is permitted/not permitted

Q. No.	Details	Marks	CO	BTL
Q.1	Attempt the Following Questions:	10		
1.	What is wrong about AMI? a) An Amazon Machine Image (AMI) provides the information required to launch an instance b) It is not necessary to specify an AMI when you launch an instance c) You can launch multiple instances from a single AMI when you need multiple instances with the same configuration d) You can use different AMIs to launch instances when you need instances with different configurations.		CO2	1,2,3,6
2.	What are the authentication in AWS a) UserName/Password b) Access Key c) Access Key/Session Token d) All of the above		CO2	1,2,3,6
3.	Which of the following is not a AWS cloud platform services a) Analytics b) Networking c) Mobile Services d) Internet of Things		CO3	1,2,3,6
4.	You want to set up a public website on AWS. Your requirements are as follows: You want the database and the application server running on AWS VPC. You want the database to be able to connect to the Internet, specifically for patch upgrades. You do not want to receive any incoming requests from the Internet to the database. Which of the following solutions would best satisfy all the above requirements for this planned public AWS website? Choose the correct answer from the		CO3	1,2,3,6

options below.

- a) Setup the database in a private subnet with a security group which only allows outbound traffic.
 - b) Setup the database in a public subnet with a security group which only allows inbound traffic.
 - c) Setup the database in a local data center and use a private gateway to connect the application to the database.
 - d) Setup the public website on a public subnet and set up the database in a private subnet which connects to the Internet via a NAT Instance.
5. You need to ensure that instances in a private subnet can access the Internet. The solution should be highly available and ensure less maintenance overhead. Which of the following would ideally fit this requirement? CO3 1,2,3,6
- a) Host the NAT Instance in the private subnet.
 - b) Host the NAT Instance in the public subnet.
 - c) Use the NAT Gateway in the private subnet
 - d) Use the NAT Gateway in the public subnet.
6. A company has assigned two web servers instances to an Elastic Load Balancer. However, the instances and the ELB are not reachable via URL to the elastic load balancer serving the web app data from the EC2 instances. How might you resolve the issue so that your instances are serving the web app data to the public Internet? Choose the correct answer from the options given below. CO4 1,2,3,6
- a) Attach an Internet Gateway to the VPC and route it to the subnet.
 - b) Add an Elastic IP address to the instance.
 - c) Use Amazon Elastic Load Balancer to serve requests to your instances located in the internal subnet.
 - d) None of the above
7. An application consists of the following architecture: CO4 1,2,3,6
- a. EC2 Instances in multiple AZ's behind an ELB
 - b. The EC2 Instances are launched via an Auto Scaling Group.
 - c. There is a NAT instance which is used so that instances can download updates from the Internet.
- Which of the following is a bottleneck in the architecture?
- a) The EC2 Instances
 - b) The ELB
 - c) The NAT Instance
 - d) The Auto Scaling Group
8. A Solutions Architect is designing an online shopping application running in a VPC on EC2 Instances behind an ELB Application Load Balancer. The instances run in an Auto Scaling group across multiple Availability Zones. The application tier must read and write data to a customer managed database cluster. There should be no access to the database from the Internet, but the cluster must be able to obtain software patches from the Internet. Which VPC design meets these requirements? CO3 1,2,3,6
- a) Public subnets for both the application tier and the database cluster
 - b) Public subnets for the application tier, and private subnets for the database cluster
 - c) Public subnets for the application tier and NAT Gateway, and private subnets for the database cluster

- d) Public subnets for the application tier, and private subnets for the database cluster and NAT Gateway
9. Which load balancer provides basic load balancing across multiple Amazon EC2 instances? CO4 1,2,3,6
- a) Application Load Balancers
 - b) Network Load Balancers
 - c) Storage Load Balancers
 - d) Classic Load Balancers
10. You have created your own VPC and subnet in AWS and launched an instance in that subnet. On attaching an Internet Gateway to the VPC, you see that the instance has a public IP. The route table is shown below:
The instance still cannot be reached from the Internet. Which of the below changes need to be made to the route table to ensure that the issue is resolved? CO3 1,2,3,6
- a) Add the following entry to the route table 0.0.0.0/0 Internet Gateway
 - b) Modify the above route table 10.0.0.0/16 Internet Gateway
 - c) Add the following entry to the route table 10.0.0.0/16 ->Internet Gateway
 - d) Add the following entry to the route table - 0.0.0.0/16->Internet Gateway
- Q.2 Attempt the following questions** 10
1. Define Amazon IAM services? CO2 1,2,3,6
 2. _____ is a compute service that lets you run code without provisioning or managing servers CO4 1,2,3,6
 3. Define Amazon RDS ? CO3 1,2,3,6
 4. Define is Amazon VPC. CO3 1,2,3,6
 5. What do you mean by Amazon – EBS. CO2 1,2,3,6
- Q.3 Attempt (Any 4) from the following questions.** 20
1. Explain AWS ELB with its types and working with suitable diagram CO4 1,2,3,6
 2. Explain AWS Region, Availability Zones, Data Center with suitable diagram CO2 1,2,3,6
 3. Explain Amazon RDS in Virtual Private Cloud with suitable diagram. CO3 1,2,3,6
 4. Explain the working of AWS Auto Scaling features with suitable diagram CO4 1,2,3,6
 5. What are the foundational services of AWS ? Explain any one in detail with suitable diagram. CO2 1,2,3,6
 6. Explain NAT in VPC Networking with suitable diagram CO3 1,2,3,6

*****End of Question Paper*****