

Cloud Computing

Mid Term 2024



Faculty of Computers and AI
2nd Term Midterm Exam
Major: IS&SC Level: 4th
Subject: Cloud Computing



Benha University
Date: April 2024
Time: 45 Minutes
Examiner(s): Dr. Fady

Section No.: _____ الاسم (رأى باللغة العربية ومنطابق مع الكشوفات): _____

Q1) State 5 fundamental attributes of cloud computing (NIST definition) with a short description.

#	Attribute	Short Description
1		
2		
3		
4		
5		

Q2) A cloud provider provides a storage service guaranteeing the following (No calculator needed to answer):

a) You can store 1 billion objects for 1000 years. However, one object may be corrupted after this period.

What is the name of this feature?	
What is the SLA value of this feature (how many nines)?	
The SLO value of this feature could be	<input type="checkbox"/> 9 9s <input type="checkbox"/> 10 9s <input type="checkbox"/> 11 9s <input type="checkbox"/> 12 9s <input type="checkbox"/> 13 9s <input type="checkbox"/> 14 9s
b) This storage service allows you to access your data quickly, except for 52.56 minutes yearly.	
What is the name of this feature?	
What is the SLA value of this feature (how many nines)?	

Q3) Complete the following:

1	An object storage service from AWS	
2	A file storage service from AWS	
3	A block storage service from AWS	
4	Max object size in AWS object storage service	
5	A service that can host a static website easily on AWS	
6	What will you use to get recommendations to optimize the EC2 instance type	
7	A block storage that cannot be used as a boot volume in AWS	

Q4) Write the full term for each of the following abbreviations.

1	IAM	I.....	A.....	M.....
2	AMI	A.....	M.....	I.....

Q5) Draw a diagram to show Amazon EC2 Virtualization. Your diagram should show

- Hypervisor and the AWS host server
- CPU, memory, and two storage services
- A network that allows the VM to connect to the Internet, AWS services, and a storage service

GOOD LUCK, Dr. Fady

Q1) State 5 fundamental attributes of cloud computing (NIST definition) with a short description

#	Attribute	Short Description
1	On-demand self-service	No human intervention needed to get resources
2	Broad network access	Access from anywhere
3	Resource pooling	Provider shares resources to customers
4	Rapid elasticity	Get more resources quickly as needed
5	Measured service	Pay only for what you consume

Q2) A cloud provider provides a storage service guaranteeing the following (No calculator needed to answer):

a) You can store 1 billion objects for 1000 years. However, one object may be corrupted after this period.

What is the name of this feature?	Amazon S3
What is the SLA value of this feature (how many nines)?	99,99
The SLO value of this feature could be	11 9s

b) This storage service allows you to access your data quickly, except for 52.56 minutes yearly.

What is the name of this feature?	High availability
What is the SLA value of this feature (how many nines)?	99,99

Q3) Complete the following:

1	An object storage service from AWS	Amazon S3
2	A file storage service from AWS	Amazon Elastic File System (EFS)
3	A block storage service from AWS	Amazon Elastic Block Store (EBS)
4	Max object size in AWS object storage service	5 TB
5	A service that can host a static website easily on AWS	Amazon S3 Static Website Hosting
6	What will you use to get recommendations to optimize the EC2 instance type	AWS Compute Optimizer
7	A block storage that cannot be used as a boot volume in AWS	Amazon Elastic Block Store (EBS)

Q4) Write the full term for each of the following abbreviations.

1	IAM	Identity and Access Management
2	AMI	Amazon Machine Image

Q5) Draw a diagram to show Amazon EC2 Virtualization. Your diagram should show

- Hypervisor and the AWS host server
- CPU, memory, and two storage services
- A network that allows the VM to connect to the Internet, AWS services, and a storage service

