

#### NPTEL Online Certification Courses





## **Cloud Computing**

## **Assignment-Week 6**

TYPE OF QUESTION: MCQ/MSQ [One or more options may be correct]

Number of questions: 10 Total mark: 10 X 1 = 10

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#### **OUESTION 1:**

I.	Replay	(A) Prevents the normal use of communication facilities.
II.	Denial of service	(B) Passive capture of a data unit and its subsequent retransmission to produce an unauthorized effect.
III.	Modification	(C) Some portion of a legitimate message is altered.
IV.	Masquerade	(D) One entity pretends to be a different entity.

- (a) I-A, II-C, III-B, IV-D
- (b) I-C, II-A, III-B, IV-D
- (c) I-B, II-A, III-C, IV-D
- (d) I-D, II-B, III-A, IV-C

#### Correct Answer: c

**Solution:** Active attacks involve some modification of the data stream or the creation of a false stream. These four are the four categories of active attacks. Refer slide no. 16 of Cloud-Security I.

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#### **QUESTION 2:**

Which of the following is/ are the goal(s) of security?

- (a) Detect attackers' violation of security policy
- (b) Continue to function correctly even if attack succeeds
- (c) Stop attack, assess and repair damage
- (d) None of the above

Correct Answer: a, b, c

**Solution:** *Refer slide no. 8 of Cloud-Security I.* 

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#### **OUESTION 3:**

**Statement I:** Release of message contents means that the opponent can determine the location and identity of communicating hosts, and observe the frequency and length of messages being exchanged

**Statement II:** Traffic analysis is desirable to prevent the opponent from learning the contents of the transmission.

Which of the options are correct?

- (a) Statement I is TRUE and Statement II is FALSE
- (b) Statement II is TRUE and Statement I is FALSE
- (c) Both are TRUE
- (d) Both are FALSE

#### Correct Answer: d

**Solution:** These are the types of passive attacks. Release of message contents:- It may be desirable to prevent the opponent from learning the contents of the transmission. Traffic analysis:- The opponent can determine the location and identity of communicating hosts, and observe the frequency and length of messages being exchanged.

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#### **QUESTION 4:**

Modification security attack is an attack on Integrity

- (a) TRUE
- (b) FALSE

#### Correct Answer: a

**Solution:** Modification security attack is attack on integrity.

#### **OUESTION 5:**

Which of the following are the Gartner's seven cloud computing risks?

- (a) Regulatory Compliance & Audit
- (b) Data Location
- (c) Data Segregation
- (d) Short-term Viability

Correct Answer: a, b, c

Solution: Refer slide no. 10 of Cloud-Security II.

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#### **QUESTION 6:**

Recovery Time Objective (RTO) represents:

- (a) The maximum amount of data that will be lost following an interruption or disaster.
- (b) The period of time allowed for recovery
- (c) The period of time allowed for the complete execution
- (d) The maximum period of time allowed for the compilation of the programme

#### Correct Answer: b

**Solution:** Recovery Time Objective (RTO): The period of time allowed for recovery i.e., the time that is allowed to elapse between the disaster and the activation of the secondary site.

#### **QUESTION 7:**

In which situation it is better to switch cloud providers?

- (a) Contract price decrease
- (b) Provider bankruptcy
- (c) Provider service shutdown
- (d) Business dispute

Correct Answer: b, c, d

**Solution:** Refer slide no. 17 of Cloud-Security II.

#### **QUESTION 8:**

In full-virtualization, VMs run on hypervisor that interacts with the hardware

- a) True
- b) False

#### Correct Answer: a

**Solution:** Full virtualization: VMs run on hypervisor that interacts with the hardware, and Para virtualization: VMs interact with the host OS.

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#### **OUESTION 9:**

Choose the option(s) which is/are not a passive attack?

- a) Traffic Analysis
- b) Release of message contents
- c) Denial of service
- d) Replay

Correct Answer: c, d

**Solution:** A passive attack is a network attack in which a system is monitored and sometimes scanned for open ports and vulnerabilities. The purpose is solely to gain information about the target and no data is changed on the target.

#### **QUESTION 10:**

Reliability and Efficiency are basic components of security

- (a) TRUE
- (b) FALSE

**Correct Answer: b** 

**Solution:** Confidentiality (Keeping data and resources hidden), Integrity and Availability (Enabling access to data and resources) are the major components of security.

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