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NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Edge Computing (course)

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Week 1: Assignment 1

The due date for submitting this assignment has passed.

Due on 2025-02-05, 23:59 IST.

Assignment submitted on 2025-02-02, 15:50 IST

1) Which company introduced EC2, a service for on-demand computing?   *1 point*

○ Microsoft

○ Google

◉ Amazon

○ Oracle

Yes, the answer is correct.
Score: 1

Accepted Answers:
Amazon

2) What defines the 'intelligence tier' in edge computing architecture?   *1 point*

○ Data ingestion

◉ Running ML models

○ Data storage

○ User interfaces

Yes, the answer is correct.
Score: 1

Accepted Answers:
Running ML models

3) What is the main benefit of virtualization in cloud computing?   *1 point*

○ High latency

○ Cost increase

○ Efficient resource utilization

○ Limited scalability

Yes, the answer is correct.
Score: 1

Accepted Answers:
Efficient resource utilization

4) Which cloud service model includes virtual machines, storage, and networking capabilities?   **1 point**

◉ IaaS

○ PaaS

○ SaaS

○ HaaS

Yes, the answer is correct.
Score: 1
Accepted Answers:
IaaS

5) According to Moore's Law, processor speed doubles every: **1 point**

○ 9 months

○ 12 months

◉ 18 months

○ 24 months

Yes, the answer is correct.
Score: 1
Accepted Answers:
18 months

6) What does the Water Usage Effectiveness (WUE) metric measure in cloud data centers?   **1 point**

○ IT energy consumption per server

○ Total facility power to IT power ratio

◉ Annual water usage per IT equipment energy

○ Data transmission speed per watt

Yes, the answer is correct.
Score: 1
Accepted Answers:
Annual water usage per IT equipment energy

7) Identify the correct match: **1 point**

◉ IaaS – Load Balancing

○ PaaS – Virtual Machines

○ SaaS – Web Servers

○ HaaS – CRM

Yes, the answer is correct.
Score: 1

Accepted Answers:
IaaS – Load Balancing

8) If an edge node takes 0.05 seconds to process a task and 0.02 seconds for data   *1 point*
transfer,
what is the total latency?

- ⦿ 0.07 seconds
- ◯ 0.05 seconds
- ◯ 0.02 seconds
- ◯ 0.09 seconds

Yes, the answer is correct.
Score: 1

Accepted Answers:
0.07 seconds

9) Which cloud computing model primarily provides runtime environments, databases, *1 point*
and
development tools?

- ◯ SaaS
- ◯ IaaS
- ⦿ PaaS
- ◯ HaaS

Yes, the answer is correct.
Score: 1

Accepted Answers:
PaaS

10) Which cloud computing paradigm enables customers to access virtual machines,   *1 point*
servers, and storage on a pay-as-you-go basis?

- ◯ SaaS
- ◯ PaaS
- ⦿ IaaS
- ◯ HaaS

Yes, the answer is correct.
Score: 1

Accepted Answers:
IaaS