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# PRESIDENCY UNIVERSITY

BENGALURU

## Mid - Term Examinations – October 2025

Date: 27-10-2025

Time: 11.00am to 12.30pm

|                       |                                   |                |
|-----------------------|-----------------------------------|----------------|
| School: SOCSE/SOE     | Program: BTech. CST-CDV           |                |
| Course Code : CDV3402 | Course Name: Serverless Computing |                |
| Semester: VII         | Max Marks: 50                     | Weightage: 25% |

| CO - Levels | C01 | C02 | C03 | C04 | C05 |
|-------------|-----|-----|-----|-----|-----|
| Marks       | 26  | 24  |     |     |     |

### Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

### Part A

Answer ALL the Questions. Each question carries 2marks.

5Q x 2M=10M

|   |   |         |    |     |
|---|---|---------|----|-----|
| 1 | What is a "traditional" computing model in the context of cloud evolution?    | 2 Marks | L1 | C01 |
| 2 | What is container-based deployment?   | 2 Marks | L1 | C01 |
| 3 | Define statelessness, automated scaling, Orchestration and choreography.      | 2 Marks | L1 | C01 |
| 4 | Name any three cloud service providers and describe briefly how does it work. | 2 Marks | L1 | C02 |
| 5 | What is time out w.r.t a container?   | 2 Marks | L1 | C02 |

### Part B

**Answer the Questions.****Total Marks 40M**

|           |           |   |                 |           |            |
|-----------|-----------|---|-----------------|-----------|------------|
| <b>6.</b> | <b>a.</b> | Explain core characteristics of serverless computing.   | <b>10 Marks</b> | <b>L2</b> | <b>CO1</b> |
|           | <b>b.</b> | Tabularize Serverless vs. traditional vs. container-based models.   | <b>10 Marks</b> | <b>L2</b> | <b>CO1</b> |
| <b>OR</b> |           |   |                 |           |            |
| <b>7.</b> | <b>a.</b> | Explain evolution of cloud computing.   | <b>10 Marks</b> | <b>L2</b> | <b>CO1</b> |
|           | <b>b.</b> | What is FaaS and BaaS? Explain working of FaaS. Give real-world use cases for each and explain how they empower developers. | <b>10 Marks</b> | <b>L2</b> | <b>CO1</b> |

|           |           |   |                 |           |            |
|-----------|-----------|---|-----------------|-----------|------------|
| <b>8.</b> | <b>a.</b> | Describe the internal execution flow of FaaS.                               | <b>10 Marks</b> | <b>L2</b> | <b>CO2</b> |
|           | <b>b.</b> | Discuss the step by step working of a serverless web application using AWS. | <b>10 Marks</b> | <b>L2</b> | <b>CO2</b> |
| <b>OR</b> |           |   |                 |           |            |
| <b>9.</b> | <b>a.</b> | Explain the common patterns & internal consideration of FaaS platform.      | <b>10 Marks</b> | <b>L2</b> | <b>CO2</b> |
|           | <b>b.</b> | With a neat sketch and explain the importance and working of API gateway.   | <b>10 Marks</b> | <b>L2</b> | <b>CO2</b> |