

Virtual Labs LDC Review Sheet

General Instructions:

- Kindly provide the review date in the table below and rate each experiment on the following aspects: Pedagogy, Quality, Interactivity, and Related Resources.
- Use the following scale:
 1: Poor | 2: Below Average | 3: Average | 4: Good | 5: Excellent
- Additionally, include comments or suggestions for improvement in each section.
- Once all experiments have been reviewed, kindly complete the final recommendation section below.

Note: After successfully reviewing the experiments, the LDC decides on one of the following outcomes. The LDC has to make one of the following decisions:

1. Provisional Approval: Host the lab as "Under Review" on the central website: www.vlab.co.in even if the LDC feedback has not been incorporated. Developers can continue addressing the feedback in parallel. Once the feedback has been incorporated, the LDC will forward the lab for external review.

2. Pending LDC Approval: Do not host the lab until all LDC feedback is fully incorporated and the lab has been reviewed again by the LDC to ensure all changes are addressed.

3. Pending approval from Domain Expert: Host the labs on the central website: www.vlab.co.in after the external reviews are completed and hosting approval is given by at least two external reviewers.

Lab Details Section:

1. Name of the Lab & ID:	Optimization (Chemical Engineering) Lab
2. Number of Experiments:	06
3. Affiliated Institute:	IIT Bombay
4. Target Users' Group:	UG
5. Name of the Reviewer:	Prof. Santosh Noronha
6. Email ID of the Reviewer:	noronha@che.iitb.ac.in sbniitb@gmail.com
7. Date of Review:	20 Feb 2026

Recommendation Section:

Recommendations	Decision
Ready for DXP Review:	Yes
Approved for Hosting:	Pending approval from the Domain Experts

Name of the Experiment:	1. Jacobians and Hessians
Link to the Experiment:	Link

1. Pedagogy. Please comment on whether and how the experiment contributes towards advancing the pedagogy of the experiment's topic.

- **Comments:** none
- **Rating:** 4

2. Quality. Please comment on the quality of the content in the various sections and its presentation.

- **Comments:** none

Criterion	Evaluation Parameters
Aim	5
Theory Section	4
Procedure Section	4
Pre-Test Section	5
Post-Test Section	4
Spelling, Grammar, Fonts, and Formatting	5

- **Rating:** 4

3. Simulation. Please comment on the level of interactivity of the Simulation.

- **Comments:** [Add more instructions if possible](#)

Criterion	Evaluation Parameters
Relevance	4
Responsiveness	5
Functionality	5
Others	4

- **Rating: 5**

4. Related Resources. Please comment on whether the experiment points to related online resources, along with annotations.

- **Comments:**

Reference Section	5
-------------------	---

Name of the Experiment:	2. Characterizing extrema
Link to the Experiment:	Link

1. Pedagogy. Please comment on whether and how the experiment contributes towards advancing the pedagogy of the experiment's topic.

- **Comments:** none
- **Rating:** 4

2. Quality. Please comment on the quality of the content in the various sections and its presentation.

- **Comments:** none

Criterion	Evaluation Parameters
Aim	5
Theory Section	4
Procedure Section	5
Pre-Test Section	4
Post-Test Section	5
Spelling, Grammar, Fonts, and Formatting	5

- **Rating:** 4

3. Simulation. Please comment on the level of interactivity of the Simulation.

- **Comments:**

Criterion	Evaluation Parameters
Relevance	5
Responsiveness	5
Functionality	4
Others	4

- **Rating: 4**

4. Related Resources. Please comment on whether the experiment points to related online resources, along with annotations.

- **Comments:**

Reference Section	4
-------------------	---

Name of the Experiment:	3. Interval methods: Bisection
Link to the Experiment:	Link

1. Pedagogy. Please comment on whether and how the experiment contributes towards advancing the pedagogy of the experiment's topic.

- **Comments:** none
- **Rating:** 4

2. Quality. Please comment on the quality of the content in the various sections and its presentation.

- **Comments:** none

Criterion	Evaluation Parameters
Aim	4
Theory Section	5
Procedure Section	5
Pre-Test Section	5
Post-Test Section	5
Spelling, Grammar, Fonts, and Formatting	4

- **Rating:** 5

3. Simulation. Please comment on the level of interactivity of the Simulation.

- **Comments:**

Criterion	Evaluation Parameters
Relevance	5
Responsiveness	4
Functionality	4
Others	5

- **Rating: 4**

4. Related Resources. Please comment on whether the experiment points to related online resources, along with annotations.

- **Comments:**

Reference Section	4
-------------------	---

Name of the Experiment:	4. Interval methods: Golden Search
Link to the Experiment:	Link

1. Pedagogy. Please comment on whether and how the experiment contributes towards advancing the pedagogy of the experiment's topic.

- **Comments:** none
- **Rating:** 4

2. Quality. Please comment on the quality of the content in the various sections and its presentation.

- **Comments:** none

Criterion	Evaluation Parameters
Aim	5
Theory Section	5
Procedure Section	5
Pre-Test Section	4
Post-Test Section	4
Spelling, Grammar, Fonts, and Formatting	5

- **Rating:** 5

3. Simulation. Please comment on the level of interactivity of the Simulation.

- **Comments:**

Criterion	Evaluation Parameters
Relevance	4
Responsiveness	4
Functionality	5
Others	5

- **Rating: 4**

4. Related Resources. Please comment on whether the experiment points to related online resources, along with annotations.

- **Comments:**

Reference Section	5
-------------------	---

Name of the Experiment:	5. Newton's method
Link to the Experiment:	Link

1. Pedagogy. Please comment on whether and how the experiment contributes towards advancing the pedagogy of the experiment's topic.

- **Comments:** none
- **Rating:** 4

2. Quality. Please comment on the quality of the content in the various sections and its presentation.

- **Comments:** none

Criterion	Evaluation Parameters
Aim	5
Theory Section	4
Procedure Section	4
Pre-Test Section	5
Post-Test Section	5
Spelling, Grammar, Fonts, and Formatting	5

- **Rating:** 5

3. Simulation. Please comment on the level of interactivity of the Simulation.

- **Comments:**

Criterion	Evaluation Parameters
Relevance	4
Responsiveness	5
Functionality	5
Others	4

- **Rating: 4**

4. Related Resources. Please comment on whether the experiment points to related online resources, along with annotations.

- **Comments:**

Reference Section	5
-------------------	---

Name of the Experiment:	6. Steepest Descent
Link to the Experiment:	Link

1. Pedagogy. Please comment on whether and how the experiment contributes towards advancing the pedagogy of the experiment's topic.

- **Comments:** none
- **Rating:** 5

2. Quality. Please comment on the quality of the content in the various sections and its presentation.

- **Comments:** none

Criterion	Evaluation Parameters
Aim	5
Theory Section	4
Procedure Section	5
Pre-Test Section	5
Post-Test Section	5
Spelling, Grammar, Fonts, and Formatting	5

- **Rating:** 5

3. Simulation. Please comment on the level of interactivity of the Simulation.

- **Comments:**

Criterion	Evaluation Parameters
Relevance	5
Responsiveness	4
Functionality	5
Others	5

- **Rating: 4**

4. Related Resources. Please comment on whether the experiment points to related online resources, along with annotations.

- **Comments:**

Reference Section	5
-------------------	---

-----**End of Review Sheet**-----