Seat No.

**Total No. of Pages : 2**

# MAR_APR 2026 SUMMER EXAMINATION

## 1154 B.Tech. CBCS

## Sub. Name: DevOps in Machine Learning

## Sub. Code: 109776/56526

**Day and Date: Saturday ,23-05-2026** **Total Marks: 70**

**Time: 02:30 PM To 05:00 PM**

**Instructions:**
1. **Assume suitable data wherever necessary and mention it boldly**
2. **Draw neat labelled diagrams wherever necessary**
3. **Figures to the right indicate full marks**
4. **Use Sketches/Diagrams wherever necessary**

**Special Inst.:**
+ **The question number Q6) is COMPULSORY.**
+ **Solve ANY 4 QUESTIONS from Q1) to Q5)**
+ **Read & follow the instructions carefully.**
+ **Write question numbers properly.**

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**Q1) Attempt ALL of the following questions. (Solve ALL)** **[15]**

**a.** Explain in detail the main phases of a DevOps pipeline & its purposes. **[8]**

**b.** Evaluate how pipeline automation improves model accuracy & performance. **[7]**

**Q2) Attempt ALL of the following questions. (Solve ALL)** **[15]**

**a.** Apply Jenkins' structure to explain its common use in CI & CD. **[8]**

**b.** Compare CI & CD, using examples to show differences. **[7]**

**Q3) Attempt ALL of the following questions. (Solve ALL)** **[15]**

**a.** Distinguish DevOps from SRE with a detailed description. **[8]**

**b.** Evaluate how version control supports CI and collaborative development. **[7]**

**Q4) Attempt ALL of the following questions. (Solve ALL)** **[15]**

**a.** Evaluate virtualization against containerization, focusing on pros & cons. **[8]**

**b.** Explain in detail about Site Reliability Engineering (SRE). **[7]**

**Q5) Attempt ALL of the following questions. (Solve ALL)** **[15]**

**a.** Construct Containerization using Docker with architecture & components. **[8]**

**b.** Explain Git and demonstrate how Git supports version control in software **[7]**

development.

**Q6) Write a short note. (ANY TWO)** **[10]**

**a.** Demonstrate the key responsibilities of an ML Operations Engineer. **[5]**

**b.** Compare automation & orchestration in DevOps workflows. **[5]**

**c.** Justify self-healing systems in CI/CD & how it improves application reliability. **[5]**

# End Of Question Paper

**Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -**
This Question Paper may be distributed for following Subjects as common code.
सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (1154) B.Tech. CBCS (56526) DevOps in Machine Learning Part 4 SEM 8

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