Code No.: (R22IT504PC)

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III–B.TECH–I–Semester End Examinations (Regular) - December- 2025
DEVOPS
(IT)

[Time: 3 Hours]   **[Max. Marks: 60]**

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 10 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks.

<u>**PART-A**</u>   **(10 Marks)**

1. a) List any two advantages of DevOps.   [1M]
   b) Name any two Agile frameworks.   [1M]
   c) Define resilience in devOps.   [1M]
   d) Mention any one benefit of using DevOps in software development.   [1M]
   e) What is Docker?   [1M]
   f) Define source code migration.   [1M]
   g) Define Jenkins.   [1M]
   h) What is the purpose of a host server?   [1M]
   i) Name any two deployment tools.   [1M]
   j) Mention one advantage of automated testing.   [1M]

<u>**PART-B**</u>   **(50 Marks)**

2. Analyze a real-world example of DevOps implementation highlighting challenges and   [10M]
   outcomes.

OR

3. Explain the stages involved in the Release Management process in DevOps.   [10M]

4. Explain the DevOps lifecycle for business agility with a neat diagram and example.   [10M]

OR

5. Compare and contrast monolithic and microservices architectures with suitable   [10M]
   examples.

6. Discuss the workflow of Gerrit and explain how it supports code review.   [10M]

OR

7. Explain the pull request model and its role in collaborative software development.   [10M]

8. Compare alternative build servers to Jenkins and discuss their strengths and   [10M]
   weaknesses.

OR

9. Describe how quality measures are collated and monitored during the build process.   [10M]

10. Compare Test-Driven Development (TDD) and REPL-driven development.   [10M]

OR

11. Explain various types of testing used in software development.   [10M]

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