

Roll No. 22EEAJT051

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51N0404

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B.TECH. V SEMESTER (NEW SCHEME)

MAIN/BACK EXAMINATION 2024-25

COMPUTER SCIENCE & ENGINEERING

5CS4-04 - Cloud Computing and DevOps Tools

[5CS4-04, 5IT4-04) Common to CSE & IT

Time : 3 Hours]

[Max. Marks : 70

[Min. Passing Marks :

Instructions to Candidates :

Part-A : Short Answer Type Questions (up to 25 words) $10 \times 2 = 20$ marks. All 10 questions are compulsory.

Part-B : Analytical/Problem Solving questions $5 \times 4 = 20$ marks. Candidates have to answer 5 questions out of 7.

Part-C : Descriptive/Analytical/Problem Solving questions 3×10 marks = 30 marks. Candidates have to answer 3 questions out of 5.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Use of the following supporting materials is permitted during examination. (Mentioned in form no. 205).

1 _____

2 _____

Part-A

- Q. 1. What do you mean by cloud computing ?
- Q. 2. What are the benefits of the virtualization ?
- Q. 3. What are the major advantages of the cloud computing ?
- Q. 4. What are the design principles of the cloud computing ?
- Q. 5. What are the risk mitigation of the cloud computing ?
- Q. 6. What do you mean by virtualization of cpu ?
- Q. 7. Write down any two type of SLA.
- Q. 8. What are the services models of cloud computing ?
- Q. 9. What is Docker ?
- Q. 10. What is microservices of cloud computing ?

Part-B

- Q. 1. Explain the enabling technology.
- Q. 2. What are the ethical issue in cloud computing ? Explain in details.
- Q. 3. Write in brief implementation level of virtualization.
- Q. 4. Discuss the cloud reference model.
- Q. 5. Explain the cloud security policy implementation.
- Q. 6. Explain the business continuity and disaster recovery.
- Q. 7. How to model microservices ? Explain in brief.

Part-C

- Q. 1. Explain the characteristics and components of cloud computing.
- Q. 2. Explain the architectural design of compute and storage clouds.
- Q. 3. What are the SLA-service level agreements ? Explain in details.
- Q. 4. Explain the phases of microservices.
- Q. 5. What is kubemetes and its key feature ? Write its advantages and disadvantages.
