

**B C A DEGREE END SEMESTER EXAMINATION - MARCH 2025****SEMESTER 4 : MOBILE APPLICATIONS AND CLOUD TECHNOLOGY****COURSE : 19U4VCBCA2 : FUNDAMENTALS OF DATA CENTRE***(For Regular 2023 Admission and Improvement/Supplementary 2022/2021/2020 Admissions)*

Time : Three Hours

Max. Marks: 75

**PART A****Answer All (1 mark each)**

1. Define Extranet Server Farm.
2. Why do we need Convergence and hyper convergence in storage?
3. What is dedicated hosting?
4. What is a host OS in VM?
5. What do you mean by shared hosting?
6. Where do the agents reside in micro segmentation?
7. What is the primary functionality of access tier?
8. What is fat tree data center network?
9. Define NFV.
10. Define Virtual machine.

**(1 x 10 = 10)****PART B****Answer any 8 (2 marks each)**

11. What is the difference between docker container and hypervisor?
12. What is the use RDMA?
13. What are the functions of control plane?
14. Write short note on bare metal server architecture.
15. What are the skills of prime importance within a data center?
16. Write short note on RAID 6.
17. What are the functionalities of OVN?
18. Write short note on RAID 5.
19. What are the components of measures for availability of data?
20. What are the factors determines the topology of a data center?

**(2 x 8 = 16)****PART C****Answer any 5 (5 marks each)**

21. Explain the functionalities of OVN with its high level architectural diagram.
22. What are the benefits of access layer?
23. What are the advantages and disadvantages of NAS?
24. What are the different types of facilities needed in a data center?
25. What are the benefits of RoCE?
26. What are the advantages and disadvantages of SAN?
27. Explain Virtual switching in detail.

**(5 x 5 = 25)**

**PART D**

**Answer any 2 (12 marks each)**

28. Explain in details with neat diagram Moreland's n-tier Architecture of data center.
29. Explain in detail about the different Storage efficiency technologies.
30. Explain in detail about the elements of micro segmentation.
31. Explain in details of various visualization services.

**(12 x 2 = 24)**