B C A DEGREE END SEMESTER EXAMINATION - MARCH 2024

SEMESTER 4 - MOBILE APPLICATIONS AND CLOUD TECHNOLOGY

COURSE : **19U4VCBCA2 - FUNDAMENTALS OF DATA CENTRE**

(For Regular - 2022 Admission and Improvement / Supplementary - 2021/2020 Admissions)

Time : Three Hours   Max. Marks: 75

PART A
Answer All (1 mark each)

1. Define Load balancers in a data center.
2. Define data center.
3. Define Neutron.
4. What is the transfer speed of SAS 3?
5. Define vNIC.
6. What kind of tunneling mechanism introduced through VXLAN in an overlay network?
7. Which RAID drives function as just a bunch of disks?
8. Extranet Server Farm.
9. Define Virtual machine.
10. What is dedicated hosting?

(1 x 10 = 10)

PART B
Answer any 8 (2 marks each)

11. What are the factors determines the topology of a data center?
12. What are the major resources of data centers?
13. Write short note on RAID 6.
14. Write short note on bare metal server architecture.
15. Write short note on infrastructural resources of a data center.
16. What do you mean by provisioning and management in VM?
17. Define micro segmentation.
18. What are the functionalities provided by the open stack name any two projects each?
19. Write short note on Storage tiering.
20. What is the use RDMA?

(2 x 8 = 16)

PART C
Answer any 5 (5 marks each)

21. What are the advantages and disadvantages of NAS?
22. What are the different types of data center network topology?
23. Write short note on docker containers.
24. Explain in detail the different types of storage drives.
25. Explain in detail the functional design needs of a data center.
26. What are the advantages of Micro segmentation?
27. What are the key features of core layer? Explain in detail.

(5 x 5 = 25)

PART D
Answer any 2 (12 marks each)

28. How virtual switching helps in virtual migration? Explain in detail.

29. Explain elements of micro segmentation.

30. Explain different Redundant Array of Independent Disk technology in detail.

31. Explain in detail with neat diagram the Generic Enterprise Data Centre Architecture.

(12 x 2 = 24)