Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 50417

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2023

Eighth Semester

Computer Science and Engineering

CS 8087 – SOFTWARE DEFINED NETWORKS

(Common to: Computer and Communication Engineering)

(Regulations 2017)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   What is switching function?

2.   Define multipath.

3.   What is the purpose of IEEE 802.3?

4.   What is flow Entry.

5.   What is private multitenant?

6.   Give some real-world data center implementations.

7.   What is Northbound Interface in SDN?

8.   What is the difference between NFV and SDN?

9.   What SDN Solutions Does Juniper Offer?

10. What is data center orchestration?

PART B — (5 × 13 = 65 marks)

11. (a) The explosion of the size and speed of data centers has strained the capabilities of traditional networking technologies. Discuss the needs of data centers.

Or

(b) Discuss SDN controller in detail manner.

12. (a) Elaborate the concept behind open flow switch and controller.

Or

(b) List the potential drawbacks of open SDN and explain any three in details.

13. (a) Explain tunneling technologies for data center.

Or

(b) Explain virtual extensible local area network (VXLAN).

14. (a) Explain the Rest API and their constraints.

Or

(b) Discuss network function virtualization.

15. (a) Describe the bandwidth calendaring with required sketch.

Or

(b) Elaborate the IETF SDN framework with required sketch.

PART C — (1 × 15 = 15 marks)

16. (a) Explain the SDN devices and its operation with suitable diagram.

Or

(b) Explain the SDN via hypervisor-based overlay networks.

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