

321209

May 2019

M.Tech. II Semester (ECE)

PROGRAMMABLE NETWORKS

(MECE-207)

Time : 3 Hours]

[Max. Marks : 75

Instructions :

- (i) *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
- (ii) *Answer any four questions from Part-B in detail.*
- (iii) *Different sub-parts of a question are to be attempted adjacent to each other.*

PART-A

- 1. (a) Draw block diagram of Programmable networks. (1.5)
- (b) Write applications of Programmable networks. (1.5)
- (c) How do you mean by virtualization? (1.5)
- (d) Explain the term software defined networking. (1.5)
- (e) Differentiate between Data plane and control plane. (1.5)
- (f) Write applications of Packet switching. (1.5)

- (g) Why interfacing is required? (1.5)
- (h) Write advantages of home networks. (1.5)
- (i) Explain the need of network topologies? (1.5)
- (j) Define Mininet. What are its applications? (1.5)

PART-B

- 2. (a) What are Programmable networks? How these are evolved? (10)
- (b) Explain Fundamental characteristics of SDN. Give examples. (5)

- 3. (a) Explain strategies involved in Open flow control. (5)
- (b) Explain the process of implementation of firewall using SDN. What are its applications? (10)

- 4. (a) Draw and explain block diagram of data centers and its applications. (10)
- (b) Draw and explain Network Function Virtualization system block diagram. (5)

- 5. (a) Explain various types of wireless architecture used in programmable networks. (10)
- (b) Draw and explain working of SDN controllers. (5)

- 6. (a) Explain applications of traffic engineering in SDN. (7.5)
- (b) Explain functions of internet exchange points. (7.5)

- 7. (a) Explain applications of Home networks in SDN with block diagram. (7.5)
- (b) Explain advantages of packet networks over circuit switched networks. Draw a packet and explain various fields in it. (7.5)