

27. a. Explain SDN controlled core modules with available controller example. 10 2 2 1

(OR)

b. Write a note on 10 2 2 1
(i) Nicira
(ii) Vonware

28. a. What is network function virtualization? Explain. 10 2 3 1

(OR)

b. Analyze the functionality of publish – subscribe interface with its pros and cons. 10 2 3 3

29. a. Explain the CISCO XNIC controller with usage. 10 2 4 1

(OR)

b. Give the use case of SDN in data center. 10 3 4 1

30. a. Analyze various open source controllers. 10 3 5 1

(OR)

b. Analyze various simulation and testing tools for SDN. 10 3 5 3

Reg. No.

B.Tech. DEGREE EXAMINATION, MAY 2022
Seventh Semester

18ECE320T – SOFTWARE DEFINED NETWORKS

(For the candidates admitted from the academic year 2018-2019 to 2019-2020)

Note:

- (i) **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.
(ii) **Part - B** should be answered in answer booklet.

Time: 2½ Hours

Max. Marks: 75

PART – A (25 × 1 = 25 Marks)

Answer **ALL** Questions

- | | Marks | BL | CO | PO |
|--|-------|----|----|----|
| 1. Which is virtualization software?
(A) VM ware (B) VM middle ware
(C) Xen (D) ATM | 1 | 1 | 1 | 1 |
| 2. Separation of control and data plane provide more stability by
(A) Virtue of having a smaller and less volatile code base (B) Having good data base
(C) Having more volatile code base (D) Having big code base | 1 | 1 | 1 | 3 |
| 3. Which one uses hybrid approach of config protocol?
(A) LLDP (B) MSVP
(C) Ships in night (D) Ships in day | 1 | 1 | 1 | 3 |
| 4. Bit torrent is _____
(A) A protocol for file sharing in P2P network (B) A protocol for packet forwarding
(C) A protocol for control plane (D) A protocol for data plane | 1 | 1 | 1 | 1 |
| 5. Agility of network is _____
(A) The ability of controlling data plane (B) The ability of instantiate and diable networks
(C) The ability of separating data plane (D) The ability of changing route | 1 | 1 | 1 | 3 |
| 6. RESTFUL _____
(A) Provide memory management (B) Provide facility for controller to application interaction
(C) Provide controlled switching (D) Provide controller functionality | 1 | 1 | 2 | 1 |
| 7. Mininet _____
(A) Is a hardware platform (B) Is a controller software
(C) Is a switch (D) Is a network simulator | 1 | 1 | 2 | 1 |
| 8. POX is _____
(A) A operating system (B) A controller based on C
(C) Python bases version of NOX (D) Java based frame work | 1 | 1 | 2 | 1 |

9. Ryu is _____
 (A) A memory management framework (B) A routing protocol
 (C) A open flow protocol for packet transfer (D) A open flow wire protocol for event, message and application management
10. VXLAN _____
 (A) Is a type of LAN network (B) Is an encapsulation protocol
 (C) Is a wireless LAN network (D) Is a wired LAN network
11. Open flow protocol _____
 (A) Defines rules for routing (B) Defines communication between any two switches
 (C) Defines communication between open flow controller and open flow switch (D) Defines rules for compression
12. Open flow switches uses _____
 (A) MAC address for packet matching (B) VLAN ID for packet matching
 (C) Packet ID for packet matching (D) Switch ID for packet matching
13. When match flow is not found, the switch will _____
 (A) Reroute the packet (B) Encapsulate the packet
 (C) Forward the packet to controller (D) Drop the packet
14. In Open flow auxiliary connections _____
 (A) Are connection between controllers (B) Are parallel multiple connection between single controller and switch
 (C) Are single connection between switches (D) Are connection for routing
15. JSON _____
 (A) Is a human readable XML format (B) Is a HTML format
 (C) Is a java software (D) Is a java object for simulation
16. A switch listener is to _____
 (A) Get notification when packet lost (B) Get notification when a new switch is added
 (C) Get all packet and process it (D) Get notification when a packet is receives
17. The SDN application is used secure, apply policy and blacklist application is _____
 (A) Kera (B) sent
 (C) Sentinel (D) VMware

1 1 2 1

1 1 2 1

1 1 3 3

1 1 3 1

1 1 3 3

1 1 3 1

1 1 4 1

1 1 4 1

18. Eliminate odd choice
 (A) Hardware switches provides high performance (B) Software switches are flexible
 (C) Software switches provides less time for packet (D) Hardware switches are processing limited in features
19. In public cloud _____
 (A) Services are available to closed group (B) Services are deployed by public
 (C) Services are available to public via internet (D) Services are available in intranet only
20. Which is inline network function?
 (A) Routing (B) Compression
 (C) Load balance (D) Performance monitoring by routers
21. Cutting of connection in new release of code from old one is called _____
 (A) Forking (B) Parking
 (C) Cutting (D) Disconnection
22. _____ is an open flow switch.
 (A) Napstor (B) VMware
 (C) Indigo (D) Indiga
23. Openstack _____
 (A) Is a open software for routing (B) Is a cloud computing platform
 (C) Is a open controller software (D) Is a open switch software
24. In LTE network service gateway provides _____
 (A) Functionality of packet forwarding (B) Functionality on control and data plane
 (C) Functionality of security (D) Functionality of VMware
25. SDN is used in 5G for _____
 (A) Network function virtualization (B) Implement high speed network
 (C) Implement routing functionality (D) Implement handoff

1 1 4 1

1 1 4 1

1 1 4 1

1 1 5 3

1 1 5 1

1 1 5 3

1 1 5 1

1 1 5 3

PART – B (5 × 10 = 50 Marks)
 Answer ALL Questions

Marks BL CO PO

26. a. What is a distributed control plane? Give the protocol / mechanism for it. 10 2 1 3
- (OR)
- b. Detail on open flow protocol. 10 2 1 1