

BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—2022

DCME - FOURTH SEMESTER EXAMINATION

COMPUTER NETWORKS

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. What is the need for networking?
2. What is the importance of MAN?
3. What is the purpose of a router?
4. List the advantages of star topology.
5. What is the host identifier in a IP address?
6. Write about TCP/IP addressing scheme.
7. Write about SNMP.
8. Write the difference between ARP and RARP.
9. What is the need of Network Administration?
10. List the types of Disk management tools.

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PART—B

8×5=40

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **eight** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. (a) Explain the OSI reference model with a neat diagram.

(OR)

(b) Explain various network communication standards.

12. (a) Explain different functions of following LAN Tools:

- (i) Anti-magnetic Mat
- (ii) Crimping Tool
- (iii) Loop Backplug
- (iv) Protocol Analyser

(OR)

(b) Explain about the following topology:

- (i) Ring topology
- (ii) Hybrid topology

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13. (a) Explain the following IP address classes:

- (i) Class A network
- (ii) Class B network

(OR)

(b) List the advantages and disadvantages of subnetting.

14. (a) Explain Network Monitoring and Troubleshooting.

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(OR)

(b) Explain the following protocols:

(i) HTTP

(ii) FTP

(iii) SMTP

15. (a) Explain user and group management.

(OR)

(b) Explain file system management.

PART—C

10×1=10

Instructions : (1) Answer the following question.

(2) The question carries **ten** marks.

(3) Answer should be comprehensive and criterion for valuation is the content but not the length of the answer.

16. A State is having a population of 8 crores. Out of this population 7 crores of the people are having their own individual computer system. All of these 7 crores people wants to connect to the network at the same time. All of these 7 crores computer systems wants to have an IP address at the same time. Whether IPv4 address or IPv6 address is sufficient or both of them are required for IP addresses. Justify your answer.

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