

PGDCSA Sem.2, Examination
Networking Essentials
June-2025

Date : 23/6/2025

Time : 3-00 Hours]

[Max. Marks : 50

SECTION - 1

Q1

Answer the following in brief:

[09 marks]

- a) Which Linux command is used to display file permissions ?
- b) What is private IP address ?
- c) Which protocol is used for sending emails ?
- d) What is 802.11 ?
- e) How is twisting of cables better ?
- f) What is the role of hub in networking?
- g) TCP protocol is a _____ layer protocol with reference to OSI Model.
- h) Give the full form of POP.
- i) What is the size of MAC address ?

Q2

Do as directed (Any 2) :

[08 marks]

- a) Explain the techniques used to protect a network.
- b) Differentiate between followings:
 - a. Differentiate between classful and classless addresses.
 - b. Differentiate between Logical and Physical address.
- c) In a block of addresses, we know the IP address of one host is 210.32.24.16/30. What is the first address (network address) and the last address (limited broadcast address) in this block?
- d) Calculate the subnet mask where we need to create 4 subnets for class 'C' address.

Q3

Answer the following briefly (Any 4) :

[08 marks]

- a) Mention the role of all email protocols.
- b) What is Network Topology? Which topology requires switch?
- c) How is router different from switch?
- d) How will you find IP address of your computer ?
- e) Find the netid and the hostid of the following classfull addresses:
 - a. 164.189.5.14
 - b. 210.211.32.24

[PTO]

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SECTION - 2

- Q4 Do as directed (Any 3): [09 marks]**
- a) Write a short note on Cryptography techniques.
 - b) Discuss STAR, BUS and RING topology
 - c) Discuss following Linux commands :
 - (i) pwd
 - (ii) ps
 - (iii) cat
 - d) Discuss the following terms of Security :
 - (i) Integrity
 - (ii) Encryption
 - (iii) Availability
- Q5 Answer the following in detail (Any 2): [08 marks]**
- a) Discuss various ways to connect computer to a network.
 - b) Discuss chmod command in detail
 - c) What is a protocol? Mention any 4 protocols of your choice and explain in brief.
- Q6 Do as directed (Any 2): [08 marks]**
- a) Discuss the function of WiFi access point, HUB, RJ-45, MODEM
 - b) Write a short note on VPN and NAT
 - c) State the used of following protocols :
 - TCP, ICMP, SSH, POP
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