

Roll No. :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

DDPG-562

PG Diploma in Computer Application Examination, 2023

COMPUTER NETWORKING

Paper - PGDCA-105

Time : 3 Hours]

[Maximum Marks : 50

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section-B

(Marks : 3 × 5 = 15)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **3** marks.

Section-C

(Marks : 5 × 3 = 15)

Note :- Answer any *three* questions out of five (Answer limit **500** words). Each question carries **5** marks.

Section-A

1. (i) What are *five* components of Data Communication ?
- (ii) Briefly discuss about LAN Technology.

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- (iii) What do you understand by Physical Layer Impairments ?
- (iv) List the names of *four* types of Transmission Media.
- (v) Explain control services in Data Link Layer.
- (vi) Explain ARQ concept for Error Control.
- (vii) Explain routing concept in Network Layer.
- (viii) What do you understand by Tunneling ?
- (ix) List the advantages of End to End Communication.
- (x) What are the functionalities of Application Layer ?

Section-B

2. Explain Ring and Star Topologies with advantages and disadvantages of each.

Or

Differentiate between OSI and TCP/IP Model with suitable layer diagram.

3. Explain *three* different types of transmission modes in Physical Layer.

Or

Explain about different techniques used in analog to Digital Transmission.

4. Explain the difference between Flow Control and Error Control with suitable example of each.

Or

Explain the function of line discipline in Data Link Layer.

5. What is Network Addressing ? Give names of the methods for network addressing.

Or

Explain about ARP and ICMP Network Layer Protocols.

6. Explain different network services with suitable examples.

Or

Explain TCP Layered Architecture with suitable diagram.

Section–C

7. What do you understand by Security in Data Communication ? Explain OST Security Architecture Model with neat diagram.
8. Describe Circuit Switching and Packet Switching Techniques in detail with example.
9. Explain Stop-and-Wait ARQ Protocol with diagram. Differentiate between Sliding Window and Sliding Window ARQ.
10. Explain IPv6 Header Format. Describe the function of each header field of IPv6.
11. Differentiate between UDP and TCP. Explain UDP Header with its field in detail.