

**PGDCA-05/ PGDCA-105/MSCCS-05/MSCCS-105/MCA-105/CCNI
December - Examination 2025**

**PGDCA/MSCCS (Previous)/MCA 1st Year Examination
COMPUTER NETWORKING AND INTERNET**

Paper : PGDCA-05/ PGDCA-105/MSCCS-05/MSCCS-105/MCA-105/CCNI

[Time: 3 Hours]

[Maximum Marks: 80]

Note :- The question paper is divided into three Sections A, B and C. Write answers as per the given instructions.

Section-A

4×4=16

(Very Short Answer Type Questions)

Note :- Answer **any four** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries **4** marks.

1. (i) Define virtual LAN.
- (ii) State the purpose of the 'Physical Layer' in the OSI model.
- (iii) Explain the concept of Spamming in the context of e-mail.
- (iv) Identify the class and default subnet mask of the IP address 192.168.10.1.
- (v) Define a Frame in the Data Link Layer? Give an example.
- (vi) What are the data types available in JavaScript?
- (vii) What do you understand by Packet Switching?
- (viii) What is the role of a 'Gateway' in networking?

Section-B

4×8=32

(Short Answer Type Questions)

Note :- Answer **any four** questions. Each answer should not exceed **200** words. Each question carries **8** marks.

2. Compare and contrast the Pure ALOHA and Slotted ALOHA protocols.
3. Distinguish between Connection-oriented and Connectionless services with examples.
4. Define E-Commerce. Explain the B2B, B2C and C2C models.
5. Differentiate between Internet, Intranet, and Extranet.
6. Explain the steps involved in Website Publishing.
7. Explain Event Handling in JavaScript with a suitable example (e.g., button click or form validation).
8. Discuss ASP built-in objects: Request, Response, Session and Application. Explain, how to connect an ASP page to a database using ADO?
9. What are the differences between ASP.NET and VB.NET?

Section-C

2×16=32

(Long Answer Type Questions)

Note :- Answer **any two** questions. You have to delimit your each answer maximum up to **500** words. Each question carries **16** marks.

10. Explain the OSI reference model in detail.
 11. Describe the Cyclic Redundancy Check (CRC) method for error detection with a suitable numerical example.
 12. Explain the working of CSMA/CD (Carrier Sense Multiple Access with Collision Detection). Discuss why this protocol is essential for Ethernet networks but not suitable for wireless networks?
 13. Describe the architecture of the Internet. Explain, how a packet travels from a source host to a destination host across different networks?
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