BCA-15

June - Examination 2026
BCA (Part-III) Examination
Fundamentals of Computer Networks
Paper : BCA-15

[*Time: **3** Hours*] [*Maximum Marks: **70***]

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

Section-A **7×2=14**

(Very Short Answer Type Questions)

Note :- Answer **all** 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 **2** marks.

1. (i) Define network topology.
   (ii) What is a node in a network?
   (iii) What is bandwidth?
   (iv) What is the function of the Physical Layer?
   (v) What is Internet and Intranet?
   (vi) Define transmission medium.
   (vii) What is multiplexing?

Section-B **4×7=28**

(Short Answer Type Questions)

Note :- Answer **any four** questions. You have to delimit your each answer maximum up to **200** words. Each question carries **7** marks.

2. Differentiate between LAW, MAN and WAN.
3. What is network topology? Explain the different network topologies.
4. Explain the TCP/IP reference model with neat diagram.
5. Explain AM, FM and PM.
6. Explain the various types of multiplexing.
7. Write Short Note on -
   (I) Circuit Switching
   (II) DNS
   (III) Coaxial cable
8. Discuss different types of internet.
9. Draw structural diagram of fiber optic cable and write its functions.

Section-C 2×14=28

(Long Answer Type Questions)

Note :- Answer **any two** questions. You have to delimit your each answer maximum up to **500** words. Each question carries **14** marks.

10. Describe the process of data communication in various modes.

11. Explain in detail about the error detecting technique -

    (i) Checksum

    (ii) Forward error correction

12. Explain about IPv6. Compare IPv4 and IPv6.

13. Explain in detail about HTTP operation, Request Message and Response Message types.
