

TILAK MAHARASHTRA VIDYAPEETH, PUNE
BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)
BCA SPECIALIZATION IN CYBER SECURITY (CS)/
BACHELOR OF SCIENCE (CYBER SECURITY)/
BACHELOR OF SCIENCE (CA)/
BCA Data Science and Machine Learning/
BSC Data Science & Artificial Intelligence
EXAMINATION : DECEMBER - 2025
SEMESTER - I

Sub: Computer Fundamentals Networking/Computer & Network Fundamentals
(BCA-140-20/BCA23-103/BSC24-103/BCA-CS140-20/BCAC23-103/BSCC24-103/46425-103/78625-103/79925-103)

Date : 26/12/2025

Total Marks : 60

Time: 10.00am to 12.30pm

Instructions:

1. All questions are compulsory unless and otherwise stated.
 2. Bold figures to the right of every question are the maximum marks for that question.
 3. Candidates are advised to attempt questions in order.
 4. Answers written illegibly are likely to be marked zero.
 5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
 6. Draw neat and labelled diagrams wherever necessary.
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Q.1. Fill in the blanks.

(5)

1. Wi-Fi uses ----- as its carrier
 - a) Line of sight
 - b) Ultrasound
 - c) Audio Frequency
 - d) Radio Frequency
2. IPv6 is ----- bit address
 - a) 32
 - b) 128
 - c) 64
 - d) 34
3. The output of AND gate is one only when all the inputs are -----
 - a) Zero
 - b) Three
 - c) One
 - d) Two
4. In Client Server Networking Model ----- request for Network services
 - a) Server
 - b) Router
 - c) Gateway
 - d) Client
5. Base of the binary number system is -----
 - a) 2
 - b) 10
 - c) 16
 - d) 8

Q.2. State True/False.

(5)

1. An Administrator is not required for Client Server networks
2. FTP is a protocol of application layer OSI reference model
3. RAM is a volatile type of memory
4. Zero NOR Zero produces Zero.
5. Switches are used in BUS topology

Q.3. Answer the following. (Solve any 5) (10)

1. State the advantages and disadvantages of the Internet
2. What is flowchart?
3. What is router?
4. What is the use of FTP and HTTP protocols?
5. Compare between IPv4 and IPv6
6. List the protocol for transport layer

Q. 4. Answer the following in detail. (Solve any 6) (30)

1. Write a note on WEP Security
2. Explain topology in detail.
3. Solve: a) $(2C4D)_{16} = (?)_{10}$ b) $(1024)_{10} = (?)_2$
4. Write an algorithm and draw flowchart for finding area of rectangle
5. Explain primary storage devices
6. Explain any two pointing devices
7. Explain NAND and NOR gate

Q. 5. Answer the following in detail. (Solve any 1) (10)

1. What is an IP address? Explain the classes of it.
2. Explain the layers of OSI reference Mode
