

TILAK MAHARASHTRA VIDYAPEETH, PUNE
BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)(044)/
BACHELOR OF SCIENCE (COMPUTER APPLICATIONS)(750)/
BACHELOR OF COMPUTER APPLICATIONS (CYBER SECURITY) (464)/
BACHELOR OF SCIENCE(CYBER SECURITY)(760)
EXAMINATION : DECEMBER -2024
SEMESTER - I

Sub: Computer Fundamentals Networking/Computer & Network Fundamentals
(BCA- 140-20/18/ BCA-CS-140-20/BCA23-103/BCAC23-103/BSC-24-103/ /BSCC24-103)

Date : 27/12/2024

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.

Q.1. Fill in the blanks.

(5)

- _____ is a device which convert digital data to analog
 - a) router
 - b) modem
 - c) hub
 - d) gateway
- _____ is a device that allow you to connect multiple computers to a single network.
 - a) router
 - b) hub
 - c) bridge
 - d) gateway
- In _____ network topology, a single backbone cable is shared by all the devices.
 - a) bus
 - b) tree
 - c) mesh
 - d) star
- _____ memory is faster than main memory
 - a) internal
 - b) secondary
 - c) cache
 - d) primary
- _____ allows you to connect and login to a remote computer
 - a) SMTP
 - b) FTP
 - c) HTTP
 - d) TELNET

Q.2. State True/False

(5)

1. PROM is primary memory
2. In full duplex, information can be transmitted in both directions.
3. LANs are arranged in star, bus, or ring configurations.
4. Protocols are set of rules by which data transmission takes place between nodes.
5. Hexadecimal value of decimal 34 is ACB

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

1. Define subnetting.
2. What is the Need of Network?
3. What is impact and nonimpact printer?
4. What is use of FTP and HTTP protocols?
5. What are storage units?
6. What is Wi-Fi Network?

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

1. Explain various pointing devices.
2. Explain NAND gate and NOR gate?
3. Write an algorithm and draw flowchart for finding area of triangle.
4. Explain working of DHCP server.
5. Explain the OSI reference model.
6. Explain the different types of network topologies?
7. Convert the following a. $(1101001)_2 = (?)_{10}$ b. $(3467)_8 = (?)_{16}$

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

1. What is an IP address? Explain the classes of IP address.
2. Write a note on scanner.
