CB
60:40

TILAK MAHARASHTRA VIDYAPEETH, PUNE
BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)
SPECIALIZATION IN CYBER SECURITY (CS)
EXAMINATION : MAY - 2024
SEMESTER - I
Sub: Computer Fundamentals Networking/ Computer & Network Fundamentals
(BCA- 140-18/140-20/BCA- CS-140-20/BCAC23-103)

Date : 22/05/2024 **Total Marks : 60** **Time: 2.00 pm To 4.30 pm**

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)**

1. IP protocol works at _____ layer
   a) Physical b) Data link
   c) Network d) Transport
2. _____ is a multiport repeater
   a) NIC b) hub
   c) router d) switches
3. The input of NOT gate is 0 then output will be _____
   a) 2 b) 0
   c) 1 d) 3
4. _____ is IEEE standard for Wireless Networks
   a) 802.2 b) 802.3
   c) 802.11 d) 802.15
5. The _____ is a picking device
   a) scanner b) keyboard
   c) light pen d) printer

Q.2. State True/False. **(5)**

1. WiFi networks has unlimited network range
2. Gateway is a device that connect two or more networks
3. Base of Hexadecimal number system is 8
4. All devices share a single communication line or cable in bus topology
5. Mouse is output device

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

1. What is the use of FTP and HTTP protocols?
2. What are advantages of Internet?
3. What is server?
4. What are types of keyboard?
5. What is Wi-Fi standards used in wireless network?
6. What is function of input unit and output unit?

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

1. Explain types of network.
2. Write an algorithm and draw flowchart to find greater number among two.
3. Convert the following: i) $(435)_{10} = (?)_{16}$ ii) $(11001010)_2 = (?)_8$
4. Compare between IPv4 AND IPv6
5. Explain NOR and NAND gates using truth table.
6. What is an IP address? Explain IP classes of it.
7. Explain any two primary storage.

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

1. Short Note on Scanner
2. Explain OSI Reference Model.