

**Department of Information and Communication Technology.**

**FISAC:Group-Assignment**

Sub: Network Programming and Advanced Communication Networks (ICT-3173)

Max Marks: 10 Class: V Semester CCE Date: 02-11-2023

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| 1. | Design the network scenario using cisco packet tracer.   1. The network consists of 10 hosts, 4 routers, 2 wireless routers, 3 switches, 4 sensors, 1 fan, 2 LED, 2 VoIP phones, 2 Servers. **(1)** 2. The topology should consist of RIP, OSPF, NAT, DHCP, NTP, and BGP protocols. **(2.5)** 3. While configuring the network use Class A, B, and C IP addresses (Both classful and classless) **(1)** 4. Check the connectivity between PC 0 and Server0 (in different network) by displaying the “All the Best” message at PC 0 using web browser. **(1)** 5. Check the connectivity between PC 10 and Server1 by displaying the files of server 1 at PC 10 using ftp command**. (0.5)** 6. Changes the Hello Interval timer to 20 seconds of router 2**. (0.5)** 7. Display the detail list of neighbors at router 4 and reset the OSPF counter**. (0.5)** 8. Display the NAT statistics and show the clock time of all the routers. **(1)** 9. **Group wise Question (2)**   Note:   1. Entire scenario should be configured in the **single topology.** 2. Topology is of your choice. 3. Each group should have a single report (softcopy: Commands should be handwritten) and cisco output file (filename.pkt) 4. The report should consist of Group number, Names, Roll no, and registration numbers. |
|  | Group - Wise |
| G1 | Use the same Topology and configure the VLAN on Cisco switches. Demonstrate the working principles of VLAN. |
| G2 | Use the same Topology and configure the access control list in router 2. Demonstrate the working principles of the access control list. |
| G3 | Use the same Topology and configure the VPN. Demonstrate the working principles of the VPN. |
| G4 | Use the same Topology and configure the MPLS. Demonstrate the working principles of the MPLS. |
| G5 | Use the same Topology and configure the QoS in the router. Demonstrate the working principles of QoS in a network. |
| G6 | Use the same Topology and configure the Queue in the routers. Demonstrate the different configurations of queues in the network. |
| G7 | Use the same Topology and configure the different frames (HDLC, Ethernet, Frame relay, PPP) in the network. Demonstrate the different configurations of frames in network. |
| G8 | Set up a TV configuration |
| G9 | Set up a Syslog and sniffer in network |
| G10 | Use the same Topology and configure the SNMP in the network. Demonstrate the working principles of SNMP in a network. |
| G11 | Set up a TCP Session Establishment and Termination in network |
| G12 | Use the same Topology and configure the Email in the network. Demonstrate the working principles of Email in a network. |
| G13 | Use the same Topology and configure the switch port security in the network. Demonstrate the working principles of switch port security in a network |
| G14 | Use the same Topology and configure the basic security in the network. Demonstrate the working principles of security features in a cisco packet tracer network. |
| G15 | Set up a dial-up and DSL internet connection. |
| G16 | Set up the cellular network and use the Bluetooth tethering to PC. |
| G17 | Set up home automation and control the device through mobile. |

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| Group Number | Registration Number | Name |
| G1 | 210953001 | SHREYAS GOEL |
| 210953009 | DARSHAN HOLLA M |
| 210953013 | AVANI RAO |
| 210953015 | GURRAM LAKSHMI VEDA |
| G2 | 210953017 | C V SANJEEV KUMAR |
| 210953019 | ADITYA NAYAL |
| 210953027 | TAANISHKA SUDHAKAR SHETTY |
| 210953028 | ADITHYA JAGADEESH KRISHNA |
| G3 | 210953029 | ANUSHKA CHAUDHARY |
| 210953032 | TASHMIT VERMA |
| 210953036 | SARTHAK ABHISHEK |
| 210953040 | ASHISH JHA |
| G4 | 210953042 | MISHRA SHIVAM RAMSURAT |
| 210953044 | MANIK BABORIA |
| 210953052 | HARSHITH NAGARAJ |
| 210953068 | NISHKA KULSHRESTHA |
| G5 | 210953078 | SHREYAS B S |
| 210953080 | RISHABH JAIN |
| 210953142 | PRADHAN REDDY ANTHI REDDY |
| 210953144 | VANSH SAHAY |
| G6 | 210953170 | LAASYA REDDY PATHURI |
| 210953172 | KKRISHNA SAXENA |
| 210953174 | SHOUVIK SHOME |
| 210953176 | BHAVYA JAIN |
| G7 | 210953208 | YATHARTH SRIVASTAVA |
| 210953216 | PRANITH KANAKAGIRI |
| 210953238 | URJA ATUL SHAH |
| 210953242 | KADALI PRAHARSHINI |
| G8 | 210953248 | DEEPANJAN DEY |
| 210953250 | K.GANA KAUSHIK |
| 210953256 | SUYASH PAL |
| 210953286 | YELDI AJAY KUMAR |
| G9 | 210953310 | YUVRAJ ALOKE |
| 210953320 | ABHYUDAY SULTANIA |
| 210953336 | SAURABH MANMATH BAWAGE |
| 210953338 | AKSHAY ANAND |
| G10 | 210953340 | PRANIL BHATTACHARYA |
| 210953342 | ADARSH KUMAR SINGH |
| 210953344 | ROUNAK SHANKAR |
| 210953346 | VARCHASAV KUMAR |
| G11 | 210953350 | UTKARSH SHUKLA |
| 210953352 | SHREYANSH SANKRIT |
| 210953354 | ARMAN SINGH |
| 210953356 | SUKSHAM GUPTA |
| G12 | 210953358 | YASHVARDHAN VIJAY |
| 210953360 | SUNIDHI PERIWAL |
| 210953364 | DALELA VISHVA RAHUL |
| 210953368 | SAHIL VIKAS |
| G13 | 210953370 | ADITI |
| 210953372 | AKSHAT GARG |
| 210953386 | VEMPATY SATYA SRIKAR |
| 210953392 | ASEEM YASH |
| 200953130 | LALITHADITHYA |