



**Tribhuvan University**  
**Faculty of Humanities & Social Sciences**  
**OFFICE OF THE DEAN**  
**2024**

**Bachelor in Computer Applications**  
**Course Title: Computer Networking**  
**Code No: CACS 303**  
**Semester: V**

**Full Marks: 60**  
**Pass Marks: 24**  
**Time: 3 hours**

**Candidates are required to answer the questions in their own words as far as possible.**

**Group B**

**Attempt any SIX questions.**

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|--|-----------------|
| 2. Explain the features of TCP/IP reference model.     | [6×5 = 30]      |
| 3. Define switching. Explain the types of switching.   | [5]             |
| 4. Explain the ALOHA with its performance.             | [1 + 4]         |
| 5. Define IP Address. Explain the classes of IPv4.     | [5]             |
| 6. Differentiate between the functions of TCP and UDP. | [1+4]           |
| 7. Explain the role of DHCP, FTP and HTTP Protocols.   | [5]             |
| 8. Write short notes on (any two):                     | [2 + 1.5 + 1.5] |
| a) RSA   | [2.5 + 2.5]     |
| b) CRC   |                 |
| c) Firewall  |                 |

**Group C**

**Attempt any TWO questions.**

- |  |             |
|--|-------------|
| 9. Explain transmission media with their major characteristics.  | [2×10 = 20] |
| 10. a) Differentiate between static and dynamic routing with suitable example.   | [10]        |
| b) Define Subnetting. Calculate total number of subnets and hosts per subnet for Network Address 192.168.20.0 and subnet mask is 255.255.255.128 | [5]         |
| 11. Write the services provided by Transmission Control Protocol. Explain the TCP header segment in detail.                                      | [1 + 4]     |
|  | [3 + 7]     |