

**Tribuvan University
Institute of Science and Technology
2073**

Bachelor Level/ Third Year/ Fifth Semester/ Science
**Computer Science and Information Technology (CSc.
301)** (Computer Networks)

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

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Group A

Long Answer Questions:

Attempt all questions:

(2x 10=20)

1. Explain the seven layers of OST model and compare between them.

OR

What do you mean by link state routing algorithm? Differentiate between [Pv4 and IPv6.

2. Explain the purpose of subnetting and also explain the subnet mask.

Group B

Short Answer Questions:

Attempt any eight:

(8x5=40)

3. Explain the responsibilities of data link layer in the internet model.
4. What do you mean by TCP push operation?
5. Explain the Internet Control Message Protocol (ICMP).
6. Explain the point to point protocol (PPP) with example.
7. Write down the techniques used in the 802.12 protocol for wireless networks?
8. Differentiate between ALOHA and slotted ALOHA protocols.
9. Discuss the idea used in public key encryption system.
10. What are the application of multimedia networking?
11. Mention the intra structure for network management.