Council for Technical Education and Vocational Training
Office of the Controller of Examinations
Sanothimi, Bhaktapur
Regular/Back Exam-2079, Bhadra/Ashwin

Program:	Diploma in Computer Engineering	**Full Marks: 80**
Year/Part:	III/I (2018)	**Pass Marks: 32**
Subject:	Computer Networks	**Time: 3 hrs.**

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

Attempt any TEN questions.

1. What is computer network? Explain OSI model. [2+6]
2. What is a network protocol? Differentiate between a connection oriented and connectionless services. [4+4]
3. Explain IEEE 802.3 and IEEE 802.4. Explain CSMA/CD protocol. [4+4]
4. What are transmission media? Explain any two types. Discuss flow control in data link layer. [4+4]
5. What is channel bandwidth? Explain the concept of sub-netting. Define inter-network. [2+4+2]
6. Explain transaction of IPV4 to IPV6. Explain how packets are formed and functions of network layer. [2+6]
7. Write short notes on: (any TWO) [2×4]
   a. DNS   b. Firewall
   c. VPN   d. WWW
8. Explain two protocols of transport layer? Why does need flow control in transport layer? [4+4]
9. Explain client server model. Why security is a necessity in the field of computer networks? Discuss. [3+5]
10. How confidentiality, integrity and availability is maintained in computer network? [8]
11. Classify computer networks. Write down the differences between repeater and router. [5+3]

Good Luck !