

**DIPLOMA – VIEP – COMPUTER SCIENCE AND  
ENGINEERING (DCSVI)/ADVANCED LEVEL  
CERTIFICATE COURSE IN COMPUTER  
SCIENCE AND ENGINEERING (ACCSVI)**

**Term-End Examination**

**June, 2015**

**00405**

**BICS-031 : BASICS OF NETWORKING**

*Time : 2 hours*

*Maximum Marks : 70*

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**Note :** Attempt any *five* questions. Each question carries equal marks.

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1. (a) Compare and contrast OSI with TCP/IP. 7  
(b) With the help of appropriate examples, explain the various types of connection oriented and connectionless services. 7
2. (a) Define optical fibre and its principle. Draw a cross-section diagram of optical fibre. Write its advantages and disadvantages. 10  
(b) Discuss the various transmitting and receiving operations in brief. 4
3. (a) What is meant by topology ? Explain the various types of topologies with neat diagrams. 7

- (b) Explain clearly how networks are classified by their component role, with proper diagrams. 7
4. (a) Define a protocol. What are the functions of TCP, IP, ARP and SLIP ? 7
- (b) What is the type of service that is required for compressed audio and video ? Explain. 7
5. (a) What is a computer network ? Write the benefits of network in detail. 7
- (b) Explain how the information and resources are shared in a network. 7
6. Explain the following :  $4 \times 3 \frac{1}{2} = 14$
- (a) IP Addressing
- (b) Gateway
- (c) UTP
- (d) Subnet Masking
7. (a) Describe the communication band in cellular telephony. 7
- (b) Explain the functions of routers and repeaters with the help of diagrams. 7