BICS-017

## B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

### Term-End Examination

⊓⊓1 5⊒       **June, 2018**

### BICS-017 : COMPUTER NETWORKS

*Time : 3 hours*                    *Maximum Marks : 70*

*Note : Attempt any **seven** questions. All questions carry equal marks.*

1.  (a)  What is OSI reference model ? Explain encapsulation terminology.        5

    (b)  What is guided media ? Explain twisted pair in detail with neat and clean diagram.        5

2.  (a)  Distinguish between packet switching and circuit switching. Also discuss about virtual circuit switching.        5

    (b)  Explain the header format of IPv4 and IPv6. Compare their each field.        5

3.  Define mobility. Explain multi-casting performed in IP.        10

**4.** (a) Discuss how TCP provides flow control. *5*

(b) Explain about the structure of UDP header with diagram. *5*

**5.** What is multimedia ? What are the steps followed for streaming audio and video ? *10*

**6.** (a) What do you understand by topology ? Explain tree and mesh topology in detail. *5*

(b) Explain how modems act as network control devices. *5*

**7.** (a) Explain how audio compression for MPEG-2 in the Internet takes place. *5*

(b) What are the different types of OSPF routers ? Explain any two of them. *5*

**8.** (a) Differentiate between twisted pair, coaxial cable and fibre optics. *5*

(b) What is meant by simplex and half-duplex communication system ? Give representation examples of each. *5*

**9.** (a) Compare and discuss LAN and MAN systems. *5*

(b) Draw a sketch outlining the MAN topology in your town or city. *5*

**10.** Write short notes on any *four* of the following : $4 \times 2\frac{1}{2} = 10$

    (a)    HTTP

    (b)    Subnet Masking

    (c)    Gateway

    (d)    Switch

    (e)    Cryptography

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