



**A-1726**  
**B.Sc. (I.T.) (Sem. III) Examination**  
**March / April – 2015**  
**Computer Network**

Time : 3 Hours]

[Total Marks : 70

**Instruction :**

<p>नीचे दर्शाविए निशानीवाणी विगतो उत्तरवही पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : B.SC. (I.T.) (SEM. III)</p> <p>Name of the Subject : COMPUTER NETWORK</p> <p>Subject Code No. : 1 7 2 6 Section No. (1, 2,....): Nil</p>	<p>Seat No. : □ □ □ □ □ □</p> <p style="text-align: center;">Student's Signature</p>
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- 1 Answer the following questions: 14
- (1) Define the term Topology. How many links are required in fully connected mesh topology with N nodes?
  - (2) What are the applications of Computer Network?
  - (3) Define bandwidth.
  - (4) What do you understand by Packet-filter firewall?
  - (5) What is parity bit?
  - (6) What is use of Repeater?
  - (7) What is Trust relationship?
- 2 Attempt any two: 14
- (1) Discuss Mesh and Ring topologies in detail.
  - (2) Explain Hybrid Networks. Discuss advantages and disadvantages of it.
  - (3) What is OSI model? Explain functions of each layer.
- 3 Attempt any two: 14
- (1) Explain IEEE 802.3 standard in detail.
  - (2) Discuss any three Internet Middle-Layer Protocols.
  - (3) Write a note on Circuit switching and Message switching techniques in detail.

- 4** Attempt any two: **14**
- (1) Explain CSMA with collision detection.
  - (2) Differentiate Repeaters and Hubs.
  - (3) Discuss Distance Vector Routing algorithm in detail.
- 5** Attempt any two: **14**
- (1) Explain Multiplexing in detail.
  - (2) How does network manager install and configure an adapter?
  - (3) Write a note on Secure-Sockets Layer.
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