

Roll No.

MEDC-204

M.E./M.Tech. II Semester

Examination, May 2018

Optical Network

Time : Three Hours

Maximum Marks : 70

- Note: i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Discuss briefly about multiplexing techniques in optical networks.
b) Explain about virtual circuit services and datagram.
2. Explain the following Network Components:
a) Couplers
b) Isolators
c) Circulators
d) Multiplexer
3. a) Discuss the working principle of fiber Bragg grating as Add-drop multiplexer.
b) Explain the working of acoustic optical tunable filter.
4. a) Explain how is multiplexing done in SONET. Discuss about the elements of SONET.
b) Discuss the IP layered architecture.

5. a) Discuss about Aloha and slotted Aloha.
b) Explain briefly about Medium Access Control (MAC) protocol.
6. a) Discuss about virtual topology and circuit switching and node design in wavelength routing network.
b) Discuss about static and reconfigurable network.
7. a) Discuss about Optical Time Domain Multiplexing (OTDM).
b) Discuss the working principle of terahertz optical asymmetric demultiplexer.
8. Write short notes on any two of the following:
a) Electro-optic and Thermo-optic switch
b) FDDI
c) LAMDA NET
