

Roll No .....

**MEDC-204****M.E./M.Tech. II Semester**

Examination, December 2017

**Optical Network***Time : Three Hours**Maximum Marks : 70*

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

1. a) Discuss about first generation of optical networks.  
b) Explain virtual circuit services and datagram.
2. a) Discuss about second generation optical networks.  
b) Discuss about transparencies of generator.
3. Explain the following network components :  
a) Coupler  
b) Isolator  
c) Circulators  
d) Multiplexer
4. a) Discuss the working principle of ADD/Drop multiplexer designed using fiber Bragg grating.  
b) Discuss the characterization of electro-optic, thermo-optic and SOA switches.

5. a) What are the elements of SONET/SDH infrastructure?  
b) Explain briefly about IP layered architecture.
6. a) Explain aloha and slotted ALOHA.  
b) Explain the principle working of LAMBDANET.
7. a) Write briefly about wavelength routing network.  
b) Discuss the principle of optical time domain multiplexing.
8. Write short notes on any two of the following:  
a) ESCON  
b) Photonic packet switching  
c) Tera Hertz optical asymmetric demultiplexer

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