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**MANIPAL INSTITUTE OF TECHNOLOGY**  
**MANIPAL**  
*(A constituent unit of MAHE, Manipal)*

**I SEMESTER M.TECH. (CSE/CSIS)**  
**END SEMESTER EXAMINATION-NOV 2018**  
**SUBJECT: ADVANCED COMPUTER NETWORKS [CSE 5103]**  
**REVISED CREDIT SYSTEM**  
**(24/11/2018)**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.

- 1A. What is a registrar in DNS? A DNS client is looking for the IP addresses corresponding to fhda.atc.com and chal.cat.org. Show the query message. 3M
- 1B. Explain the different types of FTP commands. Give an example for each. 4M
- 1C. Differentiate between persistent and non-persistent HTTP connections. What are HTTP cookies? 3M
- 2A. What is embedding in TELNET? Explain with an example. 2M
- 2B. What are the limitations of traditional networks? How are they overcome in a software defined network? Explain. 4M
- 2C. What is Onix? Explain all its components. 4M
- 3A. Explain the different messages of open flow protocol. 4M
- 3B. Distinguish between declarative and imperative management models. What is an SDN controller? Explain. 4M
- 3C. What are the properties of audio and video signals? 2M
- 4A. Explain the working of DASH and Skype. 5M
- 4B. What is a SIP registrar and a SIP proxy? Explain the different scheduling mechanisms that are used to transmit queued packets on the link. 5M

- 5A. What are first generation optical networks? Draw neat diagrams and explain the various multiplexing techniques for increasing the transmission capacity of the optical fiber. 3M
- 5B. Draw a neat diagram and explain the different elements of a SONET infrastructure. 3M
- 5C. What are self-healing rings? Draw neat diagrams and explain different OADM architectures. 4M

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