

(Please write your Exam Roll No.)

Exam Roll No. ....

# END TERM EXAMINATION

FIFTH SEMESTER [BCA] NOVEMBER - DECEMBER 2017

Paper Code: BCA-311

Subject: Advanced Computer Networks

Time: 3 Hours

Maximum Marks: 75

Note: Attempt any five questions including Q.no.1 which is compulsory. Select one question from each unit.

- Q1 Attempt **any five** of the following: (5x5=25)
- (a) What is Inter-domain Routing? Explain.
  - (b) Explain Sliding Window and H.323.
  - (c) Differentiate Synchronous and Asynchronous Protocols.
  - (d) List differences between ATM and Frame Relay.
  - (e) Handshaking techniques in TCP.
  - (f) What is PGP? Explain its characteristics.

## Unit-I

- Q2 (a) Explain Framing in Byte and Bit oriented protocols. Also explain framing errors. (6.5)
- (b) Explain NRZ, NRZI and Manchester encoding. Also show the NRZ, NRZI and Manchester encoding for the following bit pattern: (6)
- 1100010111001101.

- Q3 (a) What is Routing? Explain different type of routing algorithms. (6.5)
- (b) What are different Error detection approaches? Explain. (6)

## Unit-II

- Q4 (a) Explain Routing among mobile devices in details. (6)
- (b) Explain RCP, and RTP with the help of example. (6.5)
- Q5 (a) Explain Multi Protocol Label Switching and Remote Procedure Call. (6.5)
- (b) Explain tunneling, fragmentation and Reliable Byte Stream (TCP) in detail. (6)

## Unit-III

- Q6 (a) Explain RTSP, RTCP, SIP in detail. (6)
- (b) What is Congestion and Resource Allocation? Explain Congestion Control and Congestion Avoidance Mechanism in detail. (6.5)
- Q7 (a) Explain Quality of Service in detail. Explain all the techniques for achieving good quality of service. (6.5)
- (b) Define Flow Control. Explain sliding window protocol with suitable example. (6)

## Unit-IV

- Q8 (a) How security can be implemented over Internet using TLS and SSL? (6.5)
- (b) What are the different types of Firewalls? What are the strengths and weakness of firewalls? (6)
- Q9 (a) What is intrusion detection? Explain measures used for intrusion detection. (6.5)
- (b) Explain Authentication Protocols in detail. (6)

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