

**GUJARAT TECHNOLOGICAL UNIVERSITY****MCA - SEMESTER- V EXAMINATION – WINTER 2019****Subject Code: 4659308****Date: 16/11/2019****Subject Name: Advanced Network****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Do as directed. **07**
1. Name the types of wireless networks.
  2. Write the full form of ALPN.
  3. \_\_\_\_\_ is the closest API to a raw network socket in the browser.
  4. The acronym for SDP is \_\_\_\_\_
  5. Which protocol is used to address the limitation of CRL mechanism?
  6. Name the components that dictate the performance of all network traffic.
  7. What is ACK and SYN
- (b) Write IN brief:
1. TCP V/S UDP **04**
  2. Compare polling and long-polling latency **03**
- Q.2** (a) Write the answer in brief.
1. List out and explain the components of latency. **03**
  2. Write steps through which all TCP connection begins. **04**
- (b) Discuss Cross-Origin Resource Sharing. **07**
- OR**
- (b) Explain various traversal techniques used to establish end-to-end connectivity between the UDP peers on both side. **07**
- Q.3** (a) Discuss Server-Sent events. Also explain Event Stream protocol. **07**
- (b) Which protocol is used by WebRTC to describe the parameters of the peer-to-peer connection? Explain it in detail. **07**
- OR**
- Q.3** (a) Discuss WebSocket protocol. Also explain binary framing layer with diagram. **07**
- (b) Explain 802.11 standards. Also discuss 802.11b standards & features **07**
- Q.4** (a) Discuss Network Address Translator with suitable diagram. **07**
- (b) Write the answer in brief.
1. Discuss cell-breathing and near-far effect in day-to-day situations. **04**
  2. What is last mile latency? **03**
- OR**
- Q.4** (a) Write the answer in brief.
1. What do you mean by Head-of-Line blocking in TCP? **04**
  2. What is the relevance of Certificate Revocation List during the communication? **03**
- (b) Discuss STUN and TURN protocols. Also explain how ICE helps these two protocols for connectivity. **07**
- Q.5** (a) Explain all the fields of transport layer security record protocol with diagram. **07**
- (b) Differentiate SRTP and SRTCP. **07**
- OR**
- Q.5** (a) Draw and explain ICE agent connectivity states and transitions **07**
- (b) Explain chain of trust and certificate authorities w.r.t. TLS. **07**

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