

# CNTS/TSR Exam

## February 20, 2019

Mario Baldi

Politecnico di Torino  
(Technical University of Turin)

<http://www.mariobaldi.net>

# Question 1 (10 points)

- List of all nodes/destinations: -5
- LS database: 5

## Question 2-1 (6 points)

- Same prefix on different links: -4
- Different prefixes on same link: -4
- No address on customer links: -1
- No IPv4 address on hosts: -3
- Host IPv4 address not private: -2
  - Same prefix on hosts: -1
- No IPV6 address on hosts: -3

## Question 2-2 (2 points)

- No CPE: -1
- No AFTR: -1
- NAT @ CPE: -2
- No name, but explanation of role: -1
- Port range: -2
- Private addresses on Internet: -1

## Question 2-3 (6 points)

- No IPv6 outside: -2
- Indirizzo pubblico (stazione): -3
- No indirizzo IP: -4
- Port in IPv6 header: -3
- PPTP tunneling -2
- Indirizzi non espliciti: -1

## Question 3 (10 points)

- 3 DNS queries/responses (NAPTR, SRV, A) by phone: 2
  - Don't show all 3: -1
  - Not in the sequence of messages: -1
- REGISTER: 2
- UNAUTHORIZED: 1
- INVITE: 1
  - Not to local SIP server: -1
- TRYING: 1
- RINGING: 1
- 200 OK: 1

# Question 4 (10 points)

- No distribution: -4
  - Only from neighbor (not to): -3
- No binding: -4
  - Only ingress/egress: -2
- No FEC: -4
- FEC is corporate: -4
- Next hop in wrong direction: -3
- Distributed label different from bound one: -3
- Mapping with FEC in internal LSR: -3
- CE participation: -3

## Question 4 (10 points)

- Mapping with label at egress: -3
- No mapping on egress: -3
- Mapping before distribution: -2
- Distribution before binding: -2
- No downstream: -4
- Label (instead of FEC) in ingress mapping: -3
- Own interface instead of NH: -1
- No next hop in mapping: -3
- Steps in each router: -1