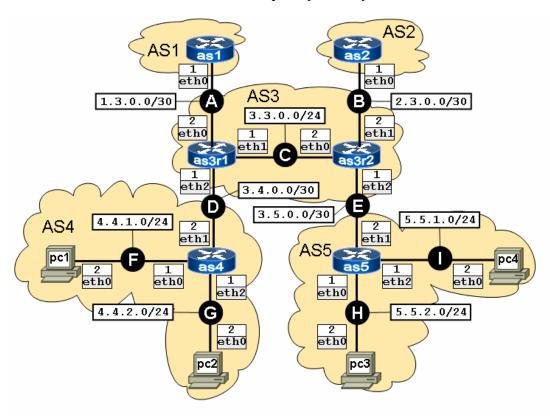
Cognome e nome:	Matricola:	PC:

## Internet and Data Centers – Fourth Intermediate Test (14-01-2022)



Rules of the game: 1) Fill in this page with your last name, first name, university registration number and the number of the PC you are using now. 2) You can browse all the course material. 3) You cannot interact <u>in any</u> way with others. It would be considered a serious disciplinary issue if you do so.



Using Kathará, implement the network depicted in the above figure and described below.

- □ AS3's routers run RIPv2 in all the internal interfaces redistributing all connected LANs and redistributing BGP.
- □ No device has the default route with exception of pc1, pc2, pc3, and pc4 which have the default gateway set.
- ☐ Links between different ASes correspond to eBGP peerings.
- ☐ All ASes announce in BGP the /30 networks they are adjacent to and their internal networks (if any).
- ☐ The BGP policies are as follows:
  - o AS3 does not announce to AS1 prefixes with community 3:1.
  - O AS3 does not announce to AS2 prefixes with community 3:2.
  - o AS4 announces prefix 4.4.1.0/24 with community 3:1 and announces prefix 4.4.2.0/24 with community 3:2.
  - AS5 announces prefix 5.5.1.0/24 with community 3:1 and announces prefix 5.5.2.0/24 with community 3:2.

## Tips

- To attach a community use the route-map set command: "set community X:Y"
- To detect a community, first define a community list:

bgp community-list standard <community\_list\_name> permit X:Y
and then use a route-map with the "match community <community\_list\_name>" clause.

## Goals:

- AS1 does not receive 4.4.1.0/24 and 5.5.1.0/24.
- AS2 does not receive 4.4.2.0/24 and 5.5.2.0/24.

## **Upload procedure:**

- Move into the parent directory of <lab-directory> and create a .tar.gz file containing the lab with the command: tar czvf file.tar.gz <lab-directory>
- Upload the file.tar.gz file in the form at http://esame.inf.uniroma3.it/