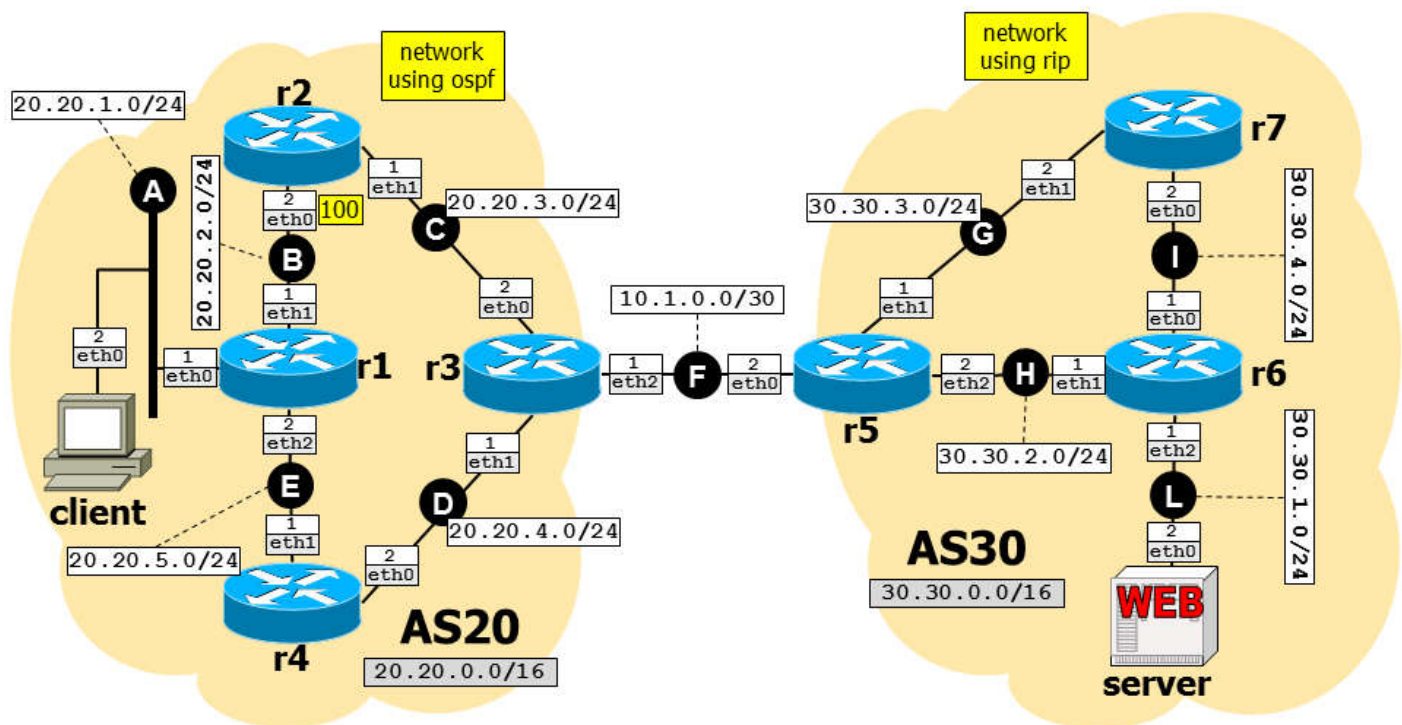**Available time: 60 minutes.**

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

- ☐ **server** is web servers running apache2; it serves a single default page containing "server".
    - o Remember to set a default route on all network nodes that do *not* act as routers.
- ☐ Routing within AS20 is implemented by using OSPF, with the following setup:
    - o All the routers belong to the backbone area.
    - o BGP is redistributed into OSPF (note: enabling redistribution automatically injects into OSPF only routes learned from E-BGP).
    - o Interface eth2 of r2 is assigned the indicated cost.
- ☐ Routing within AS30 is implemented by using RIP, with the following setup:
    - o BGP is redistributed into RIP.
- ☐ The BGP configuration is as follows:
    - o Routers do not filter any updates.
    - o No routers announce the default route.
    - o AS20's and AS30's border routers also announce their own subnet, as an aggregated prefix indicated in the gray box.
- ☐ Warning: it may take several minutes (up to 5) for the peerings to be established and for the routing protocols to converge, even if the configuration is correct!

Goals:
The BGP peering, as well as OSPF and RIP routing must operate correctly.
client must be able to access web page **http://30.30.1.2/** using the **links** web browser.