Brac University

Given the following areas and distance, in km, between them.
*The numbers in brackets specify the population size of the area.

	UB1	UB2	UB3	UB4	UB5	UB7
UB1 (254)	0					
UB2 (127)	88	0				
UB3 (1020)	100	79	0			
UB4 (522)	88	23	79	0		
UB5 (30)	120	98	364	52	0	
UB7 (1022)	144	1000	132	80	950	0

In addition to the above specification, there's UB6 where the Registrar is.

- Choose an appropriate network address and create subnets to assign to each of the places with the **least amount of waste.** But remember you can use only the **odd** IP addresses from the available IP range of a network address i.e. 192.168.1.0/24 has 256 possible IP addresses, but you can take only 192.168.1.1/24, 192.168.1.3/24, 192.168.1.5/24 etc. as host IP addresses.
- Assign IP addresses to all the devices and interfaces.
- UB6 (5000) has a web server to allow the other buildings to access the internet and also acts as the **exit point** of the entire network. The only other network connected to UB6 is UB1.
- Make sure at least 3 of the areas have dynamic routes configured.
- Establish connections among all the networks with the shortest route possible.
    - Must have at least one floating route.
    - Remember that the default route cannot be used while exchanging packets. Data will be delivered using static or dynamic routes only.
    - Configure at least two networks to be routed dynamically and two to be routed statically.

- Showing 2 end devices per network is good enough to represent the whole population.
- You need to be able to ping each other after all the setups are complete.

Deliverables

- The network mentioned above should be implemented in packet tracer, with necessary devices and full configuration.
- After completion you should be able to test the conditions imposed.
- As hardcopies, you will have to submit the followings:
    - Network topology diagram with proper labels
    - The configurations of all the routers that you have implemented.
    - VLSM/Network address table.
    - IP address table