HOTEL NETWORK

You are required to design and implement vic Modern Hotel Network. The hotel has three floors; in the first floor there three departments (Reception, Store and Logistics), in the second floor there are three departments (Fiance, HR and Sales/Marketing), while the third floor hosts the IT and Admin. Therefore, the following are part of the considerations during the design and implementation.

1) There should be three routers connecting each floor (all placed in the server room in IT Department)
2) All routers should be connected to each other using serial DCE cable
3) The network between the routers should be 10.10.10.0/30, 10.10.10.4/30, 10.10.10.8/30
4) each floor is expected to have one switch (Placed in respective Floor)
5) Each floor is expected to have WiFi networks connected to laptop and phone.
6) Each department is expected to have a printer
7) Each department is expected to be in different VLAN with the following details.
    - 1st Floor
        - ➔ Reception : VLAN 80 Network 192.168.8.0/24
        - ➔ Store : VLAN 70 Network 192.168.7.0/24
        - ➔ Logistics : VLAN 60 Network 192.168.6.0/24
    - 2nd Floor
        - ➔ Finance : : VLAN 50 Network 192.168.5.0/24
        - ➔ HR : VLAN 40 Network 192.168.4.0/24
        - ➔ Sales : VLAN 30 Network 192.168.3.0/24
    - 3rd Floor
        - ➔ Admin : VLAN 20 Network 192.168.2.0/24
        - ➔ IT : VLAN 10 Network 192.168.1.0/24
8) Use OSPF as the routing protocol to advertise routes.
9) All Devices in the network are expected to obtain IP address dynamically with their respective router configured as the DHCP server.
10) All the devices in the network are expected to communicate with each other
11) Configure SSH in all the routers for remote login.
12) In IT department, add PC called Test-PC to port fa0/1 and use it to test remote login
13) Configure port security to IT department to allow only Test-PC to access port fa0/1 (use sticky method to obtain mac-address with violation mode of shutdown)