A HOTEL NETWORK DESIGN

You are required to design and implement a modern hotel network. The hotel has 3 floors; in the first floor there are 3 departments (RECEPTION, STORE AND LOGISTICS) on the second floor; they are 3 departments (FINANCE, HR, AND MARKETING) on the third floor (IT and ADMIN). Therefore the following are part of the considerations during the design and implementations.

1. There should be 3 routers connecting each floor.
2. All routers should be connected to each other using the DCE cable.
3. The network between 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 layer 2 switch.
5. Each department should have a printer.
6. Each department should be in a different vlan with the following details

   First floor
   - Reception vlan 90, network 192.168.9.0/24
   - Store vlan 80, network 192.168.8.0/24
   - Logistics vlan 70, network 192.168.7.0/24

   Second floor
   - Finance vlan 60, network 192.168.6.0/24
   - HR vlan 50, network 192.168.5.0/24
   - Marketing vlan 40, 192.168.4.0/24

   Third floor
   - Admin vlan 30, network 192.168.3.0/24
   - Server vlan 20 network 192.168.2.0/24
   - IT vlan 10, network 192.168.1.0/24

7. Use OSPF as a routing protocol to advertise routes
8. All devices in the network are expected to obtain IP addresses dynamically from a central DHCP server.
9. All devices in the network are expected to communicate
10. Configure SSH in all routers for remote login
11. In IT dep add a PC called test-pc to port fa0/1 and use it to test remote login.
12. Configure port security to IT dep to allow test-pc to access port fa0/1(use sticky method to obtain mac-address with violation mode shutdown.
13. Configure basic settings on all devices.