

## **BAIT1013 Introduction To Computer Networks**

# **Tutorial 6: Network Layer**

Q1. a) With reference to Figure 1-2, answer the following questions: (202003 TAR UC Resit)

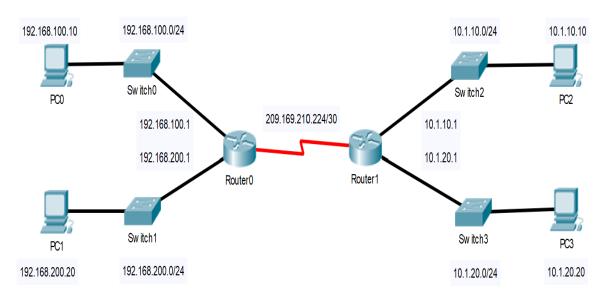


Figure 1-2: Network Topology Diagram

(i) Identify the directly-connected routes and remote routes for Router1.

|         | Directly-connected routes | Remote routes |
|---------|---------------------------|---------------|
|         |                           |               |
| Router1 |                           |               |
|         |                           |               |
|         |                           |               |
|         |                           |               |

(5 marks)

(1 mark)

- (ii) How many networks are shown in Figure 1-2?
- (iii) What is the gateway address to be configured in PC3 to allow it to communicate with PC2? (1 mark)



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Q2. a) With reference to Figure 2, answer the following questions:

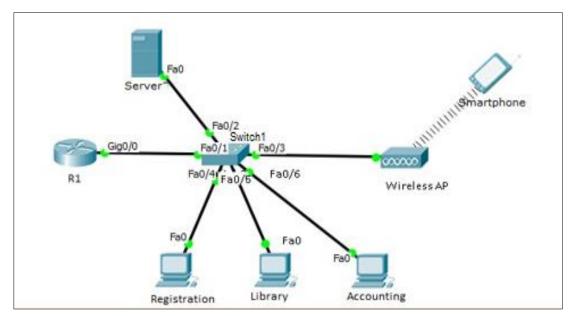


Figure 2: A branch network

| (i)  | In Figure 2, identify the default gateway for Server and Smartphone. Indicate the device name and the interface clearly in your answer. (201605 TAR UC, resit) (4 marks) |  |  |  |
|------|--|--|--|--|
|      |  |  |  |  |
| (ii) | "When Registration PC wants to send a message to Library PC, it is not required to configure default gateway in both PCs."   |  |  |  |
|      | Do you agree with the above statement? Justify your answer. (201605 TAR UC resit) (7 marks)  |  |  |  |
|      |  |  |  |  |
|      |  |  |  |  |
|      |  |  |  |  |
|      |  |  |  |  |



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Q3. Figure 4 shows the network topology diagram of Sunrise Ltd.

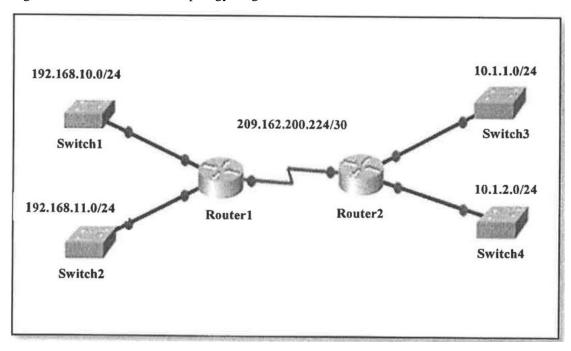


Figure 4: Network Topology Diagram

Based on the diagram shown in Figure 4, locate directly connected routes and remote routes for Router 1. (201709 TAR UC Main) (5 marks)

|          | <b>Directly Connected Routes</b> | Remote Routes |
|----------|----------------------------------|---------------|
|          |                                  | ·             |
| Router 1 |                                  |               |
|          |                                  |               |