



INDIAN SCHOOL NIZWA - WORKSHEET

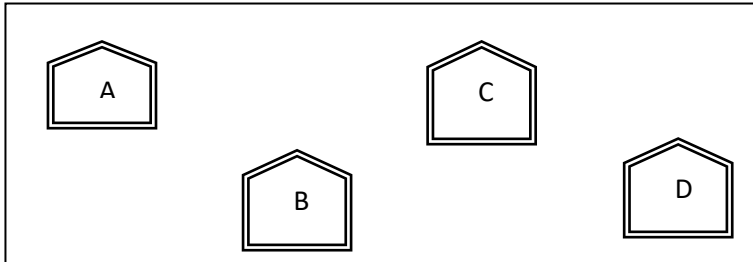
MULTIMEDIA AND WEB TECHNOLOGY CH : 3 – Communication and Network Concepts

Name: _____

Date: _____

Class: XII Sec: ____

1. Knowledge Supplement Organisation has set up its new center at Mangalore for its office and web based activities. It has 4 blocks of buildings as shown below.



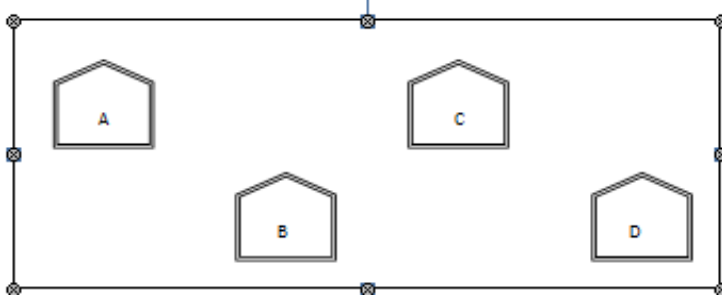
Center to center distance between various blocks		Number of Computer	
Block A to Block B	50 m	Block A	65
Block B to Block C	150 m	Block B	30
Block C to Block D	25 m	Block C	25
Block A to Block D	170 m	Block D	40
Block B to Block D	125 m		
Block A to Block C	90 m		

- Suggest a cable layout of connections between the blocks.
- Suggest the most suitable place (i.e. block) to house the server of this organization with a suitable reason.
- Where would the following preferably be placed.
 - Hub/Switch
 - Repeater
- The organization is planning to link up to its front office situated in a hilly region where cable connection is not feasible, suggest an economic way to connect it with reasonably high speed?



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2. The Tangy Flavours Pvt. Ltd has set up its new centre at Jammu for its office and web based activities, it has 4 blocks of buildings as shown in the diagram below:



Center to center distance between various blocks		Number of Computers	
Block A to Block B	50 m	Block A	65
Block B to Block C	150 m	Block B	30
Block C to Block D	25 m	Block C	25
Block A to Block D	170 m	Block D	40
Block B to Block D	125 m		
Block A to Block C	90 m		

- i) Suggest a cable layout of connections between the blocks.

- ii) Suggest the most suitable place (i.e. block) to house the server of this organization with a suitable reason.

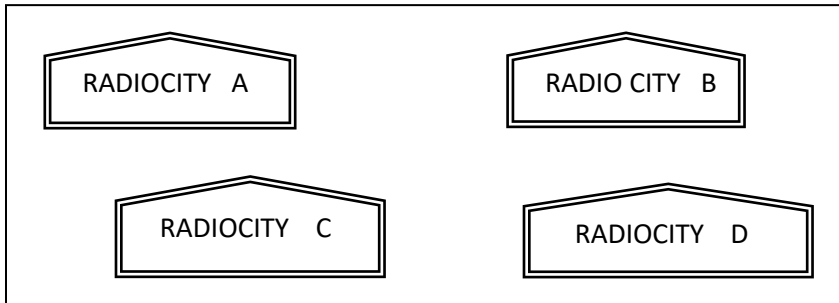
- iii) Where would the following preferably be placed.
 - a) Hub/Switch
 - b) Repeater

- iv) Which of the following communication media, will you suggest to be procured by the company for connecting to a new branch office in New Delhi for very effective and fast communication ?
 - Ethernet cable
 - Optical fiber
 - Telephone cable



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3. Radio City has set up its new center at Mumbai for its office and broadcasting activities. It has blocks of buildings as shown in the diagram below. Answer questions (i) to (iv) in context of the following layout of the four blocks:



Center to Center distance between various blocks.		Number of Computers in each wing	
RadioCity A to RadioCity B	60 m	RadioCity A	50
RadioCity B to RadioCity C	75 m	RadioCity B	250
RadioCity C to RadioCity D	175 m	RadioCity C	50
RadioCity A to RadioCity D	250 m	RadioCity D	100
RadioCity B to RadioCity D	100 m		
RadioCity A to RadioCity C	75 m		

- (1) Suggest a suitable cable layout to connect all the offices and name the topology used.
- (2) Suggest the most suitable place to house the server with proper justification.
- (3) Where and why repeaters should be used?
- (4) If the organization needs to link this branch office to another office situated in a distant city (around 1050 Km) away where cable connection is not feasible, then suggest an economic way to connect it with reasonably high speed?