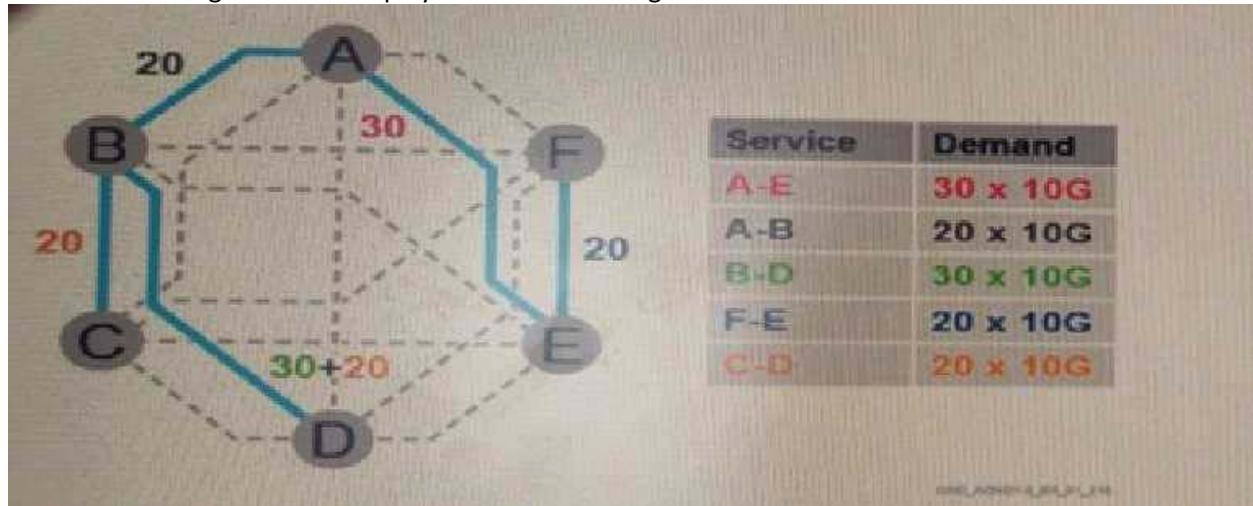


# Latest Version: 9.0

## Question: 1

Refer to the exhibit that shows a demand matrix, a network topology with candidate links (in thick blue lines and dashed lines), the defined network in thick blue lines and the demand routing (colored numbers in the figure). Every link is 80 km long. Which of the following requirements is supported by this network design with the displayed demand routing?

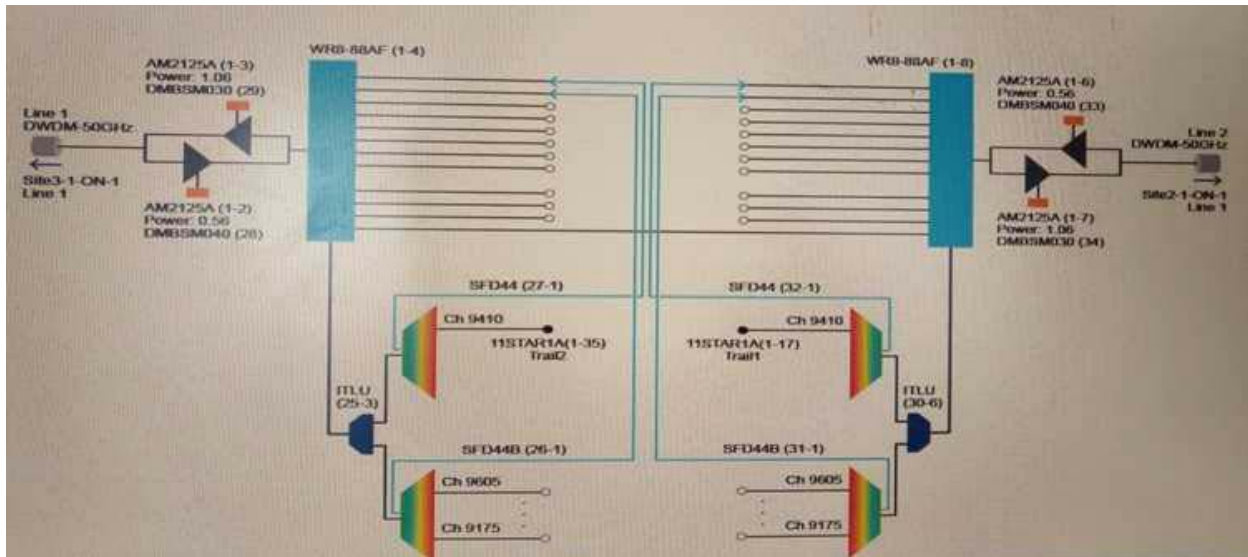


- A. 1+1 protection
- B. Minimum cost design
- C. Minimum latency
- D. Resilience against two link faults

**Answer: A**

## Question: 2

Consider the exhibit showing the schematic for an NE in a deployed optical network. The traffic growth forecast is for the use of 40 channels in 3 years. The customer needs to reduce the space for the shelf. Among the following, which additional input is NOT necessary to meet these specific requirements?



- A. Rack size
- B. Expected traffic added-dropped at the site
- C. Mean time to repair for the equipment
- D. Power supply

**Answer: D**

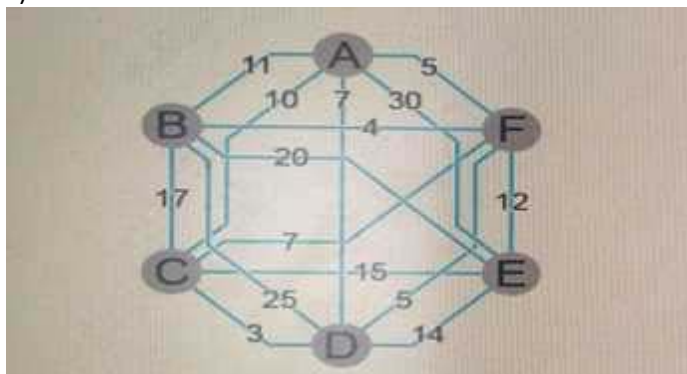
### Question: 3

Consider the exhibit that shows a network with a full mesh fiber structure. Link weights indicate the cost.

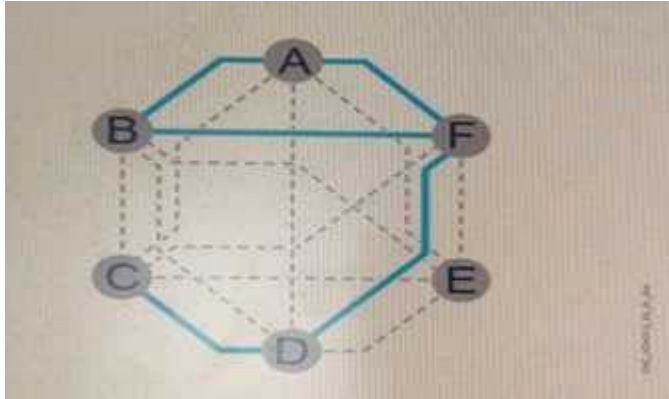
Future services can be requested between any node pair.

Which of the following topology represents a minimum cost design (minimum overall fiber cost) where link failure survivability is ensured?

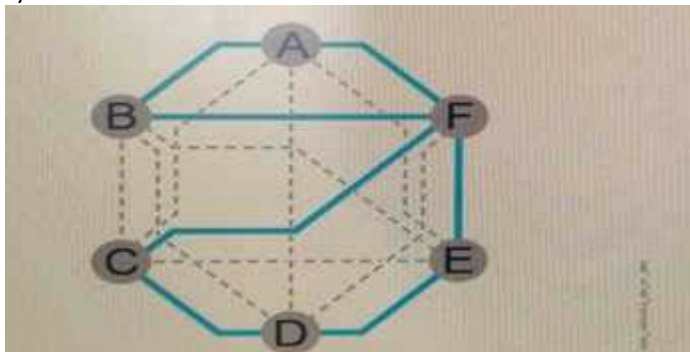
A)



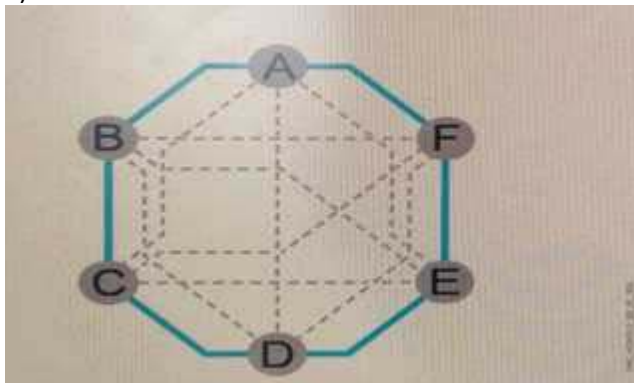
B)



c)



d)



- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: B**

### Question: 4

Suppose there is a 40 Gbit/s signal which has a symbol rate of Gbaud/s. Which modulation format is being used?

- A. QPSK
- B. BPSK
- C. 4QAM
- D. DP-QPSK

**Answer: C**

### Question: 5

What is guardband required for?

- A. To reduce the impact of chromatic dispersion.
- B. To properly use the available bandwidth of the fibers.
- C. To enable each channel to support a higher modulation format.
- D. To reduce non-linear impairments between coherent and non-coherent channels.

**Answer: D**