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## **Question:**

The central distance between two shaft is 4 m having two pulleys with diameter having 500 mm and 700 mm respectively.

Find length of belt required

- (i) for open belt drive
- (ii) for cross belt drive

## **Answer:**

- f) Problem on belt drive (02 marks each length)
  - i) for open belt

$$L = \pi/2 (d_1 + d_2) + 2x + (d_1 - d_2)^2 / 4 x$$
  
= 9.8865 m

ii) for cross belt

$$L = \pi/2 (d_1 + d_2) + 2x + (d_1 + d_2)^2 / 4x$$
  
= 9.974 m