

UNIT I DESIGN OF FLEXIBLE ELEMENTS

- 1 Distinguish between open drive and cross drive of a belt drive. Which is better.
- 2 How the ends of flat belt joined?
- 3 Define the term " Crowning of pulley"
- 4 In what ways the timing belts are superior to ordinary V-belts.
- 5 Why tight side of the Flat belt should be at the bottom side of the pulley?
- 6 List the effect of centre distance and diameter of the pulley on the life of a belt?
- 7 Write notes on Slack adjuster.
- 8 Mention the losses in belt drives.
- 9 Summarize the centrifugal effects on belts.
- 10 List the factors upon which the coefficient of friction between the belts and pulley depends?
- 11 Define maximum tension in a belt. List the few materials for belt drives.
- 12 Why slip is less in case of V-belts when compared to flat belts? Sketch the cross section of V-belt and label its important parts.
- 13 Give the relationship of ratio of tension in a V-belt drive and summarize its advantages.
- 14 How the wire ropes are designed? Write any four rope applications.
- 15 Sketch and name the different types of compound wire ropes.
- 16 Under what circumstances chain drives are preferred over V belt drives.
- 17 List the factor that affects the working conditions of chain drive. What is done to accommodate initial sag in chain drive?
- 18 Name four elements in a chain. Give any three applications of chain drives. What are the limitations?
- 19 Write notes on chordal action in chain drives. What do you understand by simplex, duplex and triplex chains?
- 20 Define coefficient of friction. What do you meant by angle of friction?