UNIT IV DESIGN OF GEAR BOXES & BRAKES

1 Write notes on preferred Numbers and Give its advantages.
2 List any two methods used for changing speeds in gear box
3 Specify the four types of gear box
4 Which type of gear is used in constant mesh gearbox? justify
5 Compare sliding mesh and synchromesh gear box.
6 Illustrate about step ratio. Name the series in which the speed of Multi speed gear are arranged.
7 Differentiate Ray diagram and structural diagram.
8 List six standard speeds starting from 18rpm with a step ratio of 1.4
9 Explain ray diagram and list the advantages of geometric progressions.
10 List the ways by which the number of intermediate steps may be arranged in a gear box.
11 Sketch the kinematic layout of gears for 3 speeds between shafts.
12 Summarize about multi speed gear box.
13 List four applications where constant mesh gear box is used.
14 List the methods of lubrication in speed reducers.
15 Specify the function of spacers in a gear box.
16 Explain R20 series.
17 List the significance of structural formulas
18 Illustrate the condition required for interchangeability in toothed gears.
19 State any three basic rules to be followed while designing a gear box.
20 Define torque converter. List its functions and applications.