4.1Vector Spaces 1-12, $20-262,4,5,6,8,10,11,12,20,21,22,24,26$
4.2Null Space and column space $1-9,15,16,23,24,25,26,31,322,4,5,6$,
$7,8,16,23,24,26,32$
4.3Linearly independent sets and bases $1,2,3,5,9,10,11,13,14,15,16,19,20,21,22,29,30$
$2,3,10,14,16,20,19,22,30$
4.4Coordinate systems $1,3,4,6,7,8,9,10,11,12,13,14,15,16,18,19,27,28,29,303,4,6,8,10,11,14,16,18,27,30$
4.5Dimension of a vector space $1,2,3,5,6,7,8,11,12,13,14,15,16,17,19,20,21,22,25,26,27,28-$

32 2,5,6,8,12,14,17,20,22,26,28,29,31
4.6Rank $1-14,17,18,19,20,27,28,29,302,3,4,6,8,10,11,12,14,18,19,28,30$
4.7Change of Basis $1,2,3,4,5,6,7,8,9,10,11,12,13,142,3,4,6,8,9,10,12,14$

