

55

(1) 1, e

(10) 2. (12), (13), (14), (15), (23),
(24), (25), (34), (35), (45)

~~(12)~~ 3. (12)(34), (12)(35), (12)(45),

(15) (13)(24), (13)(25), (13)(45),
(14)(23), (14)(25), (14)(35),
(15)(23), (15)(24), (15)(34),
(23)(45), (24)(35), (25)(35)

~~(13)~~ 4. (123), (132), (124), (142),

(20) (125), (152), (134), (143),
(145), (154), (234), (243),
(235), (253), (245), (254),
(345), (354), (135), (153)

~~(14)~~ 5. (123)(45), (132)(45),

(20) (124)(35), (142)(35),
(125)(34), (152)(34), (134)(25), (143)(25),
(145)(23), (154)(23), (234)(15), (243)(15),
(235)(14), (253)(14), (245)(13), (254)(13),
(345)(12), (354)(12), (135)(24), (153)(24)

~~(31)~~ 6. $(1234), (1243), (1235), (1253),$
 $(1245), (1254), (1324), (1342),$
 (30) $(1325), (1352), (1345), (1354),$
 $(1423), (1432), (1425), (1452),$
 $(1435), (1453), (1523), (1532),$
 $(1524), (1542), (2345), (2354),$
 $(2435), (2453), (2534), (2543),$
 ~~$(3425), (3452), (3524), (3542),$~~
 ~~$(4523), (4532)$~~ $(4531), (4513)$

~~(26)~~ 7. $(12345), (12354), (12435),$
 $(12453), (12534), (12543),$
 (24) $(13245), (13254), (13425),$
 $(13452), (13524), (13542),$
 $(14523), (14532), (15234), (15243),$
 $(23145), (23154), (24135), (24153),$
 $(25134), (25143),$ ~~$(34125), (34152),$~~
 ~~$(35124), (35142),$~~

Total # of permutations = 120 ✓