

1. Simplify the following Boolean functions using K-map.

i.  $F(x,y) = \sum(0,1,2,3)$

ii.  $F(x,y) = \sum(0,1,2)$

iii.  $F(a,b) = \sum(0,1)$

iv.  $F(y_1,y_2) = \sum(0,3)$

v.  $F(x_1,y_1) = \sum(1)$

vi.  $F(a,b) = \sum(1,2)$

2. Simplify the following Boolean functions using K-map.

i.  $F(x,y,z) = \sum(3,4,6,7)$

ii.  $F(a,b,c) = \sum(3,5,6,7)$

iii.  $F(x,y,z) = \sum(1,2,3,7)$

iv.  $F(x,y,z) = \sum(0,2,4,6)$

v.  $F(x,y,z) = \sum(0,1,2,4,6)$

vi.  $F(x_1,x_2,x_3) = \sum(1,2,4,6)$

vii.  $F(a,b,c) = \sum(0,1,2,3,4,5,6,7)$

