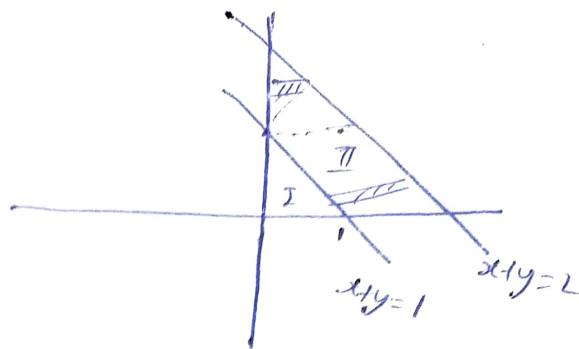


$$\iint [x+y] dx dy = \iint_I [x+y] dx dy + \iint_{II} [x+y] dx dy$$



In region I - $[x+y] = 0$
 $(0 \leq x+y < 1)$

In region II - $[x+y] = 1$
 $(1 \leq x+y < 2)$

Thus

$$\iint [x+y] dx dy = \iint_I 0 \cdot dx dy + \iint_{II} 1 \cdot dx dy$$

$$= 0 + \int_1^2 \int_0^{2-y} dx dy + \int_0^1 \int_{1-y}^{2-y} dx dy$$

$$= \int_1^2 (2-y) dy + \int_0^1 (2-y-1+y) dy$$

$$= \left[2y - \frac{y^2}{2} \right]_1^2 + 1 = (4-2) - (2-\frac{1}{2}) + 1$$

$$= 3 - \frac{3}{2} = \left[\frac{3}{2} \right]$$