$$\int_{-3.5}^{3.5} \left(t - \frac{1}{2}\right) dt - \int_{-3.5}^{3.5} [t]\, dt$$

$$\left(\frac{t^2}{2} - \frac{1}{2}t\right)_{-3.5}^{3.5} + \left\{ \int_{-3.5}^{-3} [t]dt + \int_{-3}^{-2} [t]dt + \int_{-2}^{-1} [t]dt \right.$$

$$\left. + \int_{-1}^{0} [t]dt + \int_{0}^{1} [t]dt + \int_{1}^{2} [t]dt + \int_{2}^{3} [t]dt + \int_{3}^{3.5} [t]\, dt \right\}$$

$$= \frac{(3.5)^2}{2} - \frac{1}{2}(3.5) - \frac{(-3.5)^2}{2} - \frac{1}{2}(-3.5) - \left\{ \int_{-3.5}^{-3} [t]dt + \cdots \right.$$

$$\left. \cdots \right\}$$

$$= 0 - \left[\int_{-3.5}^{-3} (-4)\, dt + \int_{-3}^{-2} (-3)\, dt + \int_{-2}^{-1} (-2)\, dt + \int_{-1}^{0} (-1)\, dt + \int_{0}^{1} 0 \cdot dt + \int_{1}^{2} 1 \cdot dt + \int_{2}^{3} 2 \cdot dt + \int_{3}^{3.5} 3 \cdot dt \right]$$

$$= -\left[(-4t)_{-3.5}^{-3} + (-3t)_{-3}^{-2} + (-2t)_{-2}^{-1} + (-t)_{-1}^{0} + (0)_{0}^{1} + (t)_{1}^{2} + (2t)_{2}^{3} + (5t)_{3}^{3.5} \right]$$

$$= -\left[-4(-3) - (-4)(-3.5) + (-3)(-2) - (-3)(-3) + (-2)(-1) - (-2)(-2) \right.$$

$$\left. + 0 - (-1)(-1) + 0 + (2-1) + (2 \times 3 - 2 \times 2) + (3 \times 3.5 - 3 \times 3) \right]$$

$$= -\left[12 - 14 + 6 - 9 + 2 - 4 - 1 + 1 + 6 - 4 + 10.5 - 9 \right]$$

$$= -\left[-2 - 3 - 3 + 3 + 1.5 \right]$$

$$3.5 \quad \text{Ans}$$