

45. Solution: D

$$\text{Note that } E(X) = \int_{-2}^0 -\frac{x^2}{10} dx + \int_0^4 \frac{x^2}{10} dx = -\frac{x^3}{30} \Big|_{-2}^0 + \frac{x^3}{30} \Big|_0^4 = -\frac{8}{30} + \frac{64}{30} = \frac{56}{30} = \frac{28}{15}$$