## **Q. 63** If A and B are matrices of same order, then (AB' - BA') is a

(a) skew-symmetric matrix

(b) null matrix

(c)symmetric matrix

(d) unit matrix

## **Sol.** (a) We have matrices A and B of same order.

Let 
$$P = (AB' - BA')$$
  
Then,  $P' = (AB' - BA')' = (AB')' - (BA')'$   
 $= (B')'(A)' - (A')'B' = BA' - AB'$   
 $= -(AB' - BA') = -P$ 

Hence, (AB' - BA') is a skew-symmetric matrix.