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MATRIC NO :- 19/ENG021005

$$1) A = (6u^2 + 8)i + (4u - 10)j + 8u^3k$$

$$B = 3ui + (2u - 5)j + 5k$$

$$a) D(A \cdot B) = (18u^3 + 24u)j + (8u^2 - 40u + 50)j + 40u^3k$$

$$\frac{d}{du}(A \cdot B) = (54u^2 + 24)i + (16u - 40)j + 120u^2k //$$

$$b) \frac{dA}{du} = i \frac{d}{du}(6u^2 + 8) + j \frac{d}{du}(4u - 10) + k \frac{d}{du}(8u^3)$$

$$\frac{dA}{du} = 12ui + 4j + 24u^2k //$$