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DATE/TIME : 28TH APRIL 2020 11:00 HRS
M CODE : MLX02193
MODULE DES : ANALYTICAL METHODS WITH STUDY SKILLS

$$H) \quad Y = (6x^3 + 2x^2 - 1)^5 \quad 18x^2 + 4x$$

$$\frac{dY}{dx} = 5(6x^3 + 2x^2 - 1)^4 (18x^2 + 4x)$$

2.

$$A) \quad Z_1 = 6 + 2j \quad Z_2 = 2 - 5j$$

$$I) \quad Z_1 + Z_2$$

$$(6 + 2j) + (2 - 5j) = 8 - 3j$$

$$II) \quad Z_1 - \overline{Z_2}$$

$$(6 + 2j) - (2 + 5j) = 4 - 3j$$

$$III) \quad \overline{Z_1} Z_2$$

$$(6 - 2j)(2 + 5j)$$

$$12 - 4j + 30j - 10j^2 = 12 + 26j - 10j^2$$