

Wb X-1377495

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$$(5.) \quad Q = \frac{B^2}{.00018 h (A^2 - X)} = \frac{10 \times 12}{.00018 \times 200 \times (5^2 - 12)} = \frac{\sqrt[3]{120}}{.036 \times (25 - 12)} = \frac{\sqrt[3]{120}}{0.36 \times 13} = \frac{\sqrt[3]{120}}{4.68} = \sqrt[3]{25.641} = 6.357 \text{ Ans.}$$

$$(6.) \quad H = \frac{10(h-3)^2}{\sqrt[3]{D+A}} = \frac{10 \times (200-120)^2}{\sqrt[3]{120+5}} = \frac{10 \times 80^2}{\sqrt[3]{125}} = \frac{64000}{5} = 12800 \text{ Ans.}$$

$$(7.) \quad G = \frac{(B-A)^2 - \sqrt[3]{A+A}}{A^3 - (1+20)} = \frac{(10-5)^2 - \sqrt[3]{120+5}}{5^3 - (1+120)} = \frac{5^2 - \sqrt[3]{125}}{125-121} = \frac{25-5}{4} = \frac{20}{4} = 5 \text{ Ans.}$$

$$(8.) \quad F = \frac{\sqrt{A} B^2}{\sqrt[3]{A} h} = \frac{\sqrt{5 \times 10^2}}{\sqrt[3]{5 \times 200}} = \frac{\sqrt{5 \times 100}}{\sqrt[3]{1000}} = \frac{\sqrt{500}}{10} = \sqrt{50} = 7.071 \times \text{Ans.}$$

$$(9.) \quad J = \frac{\sqrt{A^2 [490 + (\ln X)^2]}}{h + \frac{X}{20} (A^2 - B)^2} = \frac{\sqrt{5^2 [490 + \frac{(200 \times 12)^2}{120^2}]}}{200 + \frac{12}{120} (5^2 - 10)^2}$$