

Time : 30 minutes

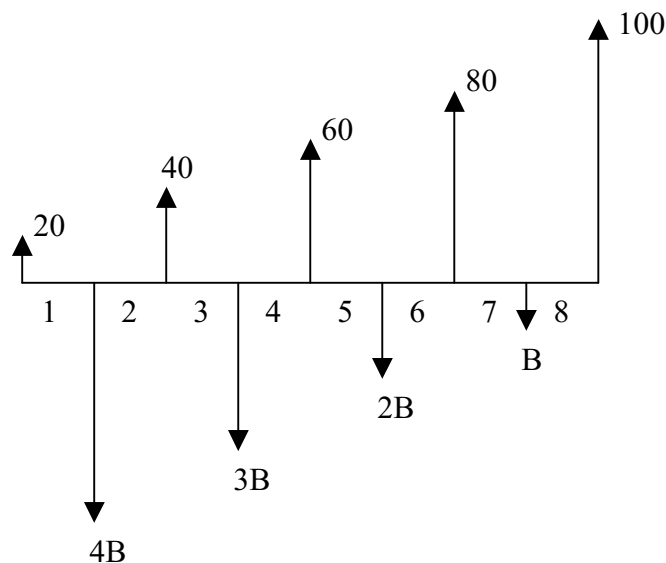
Question 1

Use tables to evaluate the following factors :

- 1- $(F/G, 1.25\%, 20) = 205$
 - 2- $(F/A, 1.5\%, 10) = 10.7$
 - 3- $(P/G, 2.5\%, 20) = 135.35$
-

Question 2

Using 10% interest rate , only write the equation that calculates the value of B in the figure below .



Sol :

$$i_{\text{eff}/2\text{periods}} = (1 + 10\%)^2 - 1 = 21\%.$$

$$20 * (F/G, 21\%, 6) = \{ 4B(F/A, 21\%, 4) - B(F/G, 21\%, 4) \} (F/P, 10\%, 1)$$

$$B \approx 24.3$$

Question 3

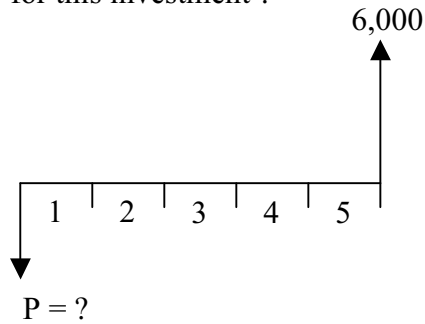
If you want 12% rate of return, continuously compounded, on a project that will yield 6,000 J.D at the end of 5 years, how much are you willing to pay now for this investment ?

Sol :

$$i_{\text{eff}} = e^{0.12} - 1 \approx 12.75\%$$

$$P = 6,000 * (P/F , 12.75\% , 5)$$

$$\approx 3293$$



Question 4

You borrowed 10,000 J.D to be repaid in 90 equal monthly payments at interest rate of 15% compounded monthly .

- (a) What is your monthly payment ?
- (b) Just after you have paid 12th payment, what is the balance ?

Sol :

$$(a) \text{ monthly payment} = A = 10,000 * (A/P , 1.25\% , 90) \approx 185.7 .$$

$$(b) B_{12} = A * (P/A , 1.25\% , 78) \approx 9219 .$$