|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | For the cash flow diagram shown below, the equation to estimate the net present worth are given below:     1. NPW = 1000 (P/A, 12%, 4) + [1200 - 200 (A/G, 12%,5)] (FA, 12%, 5) (P/F, 12%, 10) – [1000 – 200 (A/G, 12%, 5)] (P/A, 12%, 5) – 500 (F/A, 12%, 3) (P/F, 12%, 10) 2. NPW = -1000 + [200 + 200 (A/G, 12%, 4)] (P/A, 12%, 4) + [1200 – 200 (A/G, 12%,5)] (P/A, 12%, 5) (P/F, 12%, 5) – 500 (F/A, 12%,3) (P/F, 12%, 10)   ***Choose the correct option from below:***   |  |  | | --- | --- | | 1. Only A is correct | 1. Only B is correct | | 1. Both A and B are correct | 1. None of them are correct | | **[1]** |
|  |  |  |
|  | Assume that you and your best friend each have $1000 to invest. You invest your money in a fund that pays 10% per year compound interest. Your friend invests her money at a bank that pays 10% per year simple interest. At the end of 1 year, the difference in the total amount for each of you is:   * 1. You have $10 more than she does   2. You have $100 more than she does   3. You both have the same amount of money   4. She has $10 more than you do | **[1]** |
|  |  |  |
|  | You are planning to make quarterly payment in to an account which has an interest of 15% compounded semi-annually. The effective interest rate on the payment period is closest to:   |  |  |  |  | | --- | --- | --- | --- | | 1. 7.5% | 1. 15.56% | 1. 3.7% | 1. 3.75% | | **[1]** |
|  |  |  |
|  | An engineer who is saving for her retirement plans to deposit $500 every quarter, starting from next quarter onwards, into an investment account. If the account pays interest at 6% compounded semi-annually, the total she will have at the end of 25 years is closest to:   |  |  |  |  | | --- | --- | --- | --- | | 1. $2,95,380 | 1. $56,400 | 1. $79,700 | 1. $112,800 | | **[1]** |
|  | For the mutually exclusive alternatives shown, the one(s) that should be selected are:   |  |  |  |  | | --- | --- | --- | --- | | **Alternative** | **NPW, $** | **Alternative** | **NPW, $** | | **A** | 25,000 | **C** | 10,000 | | **B** | 12,000 | **D** | 15,000 |      |  |  |  |  | | --- | --- | --- | --- | | (a) Only C | (b) Only A | (c) C and D | (d) Only D | | **[1]** |
|  |  |  |
|  | In planning for your retirement, you expect to save $5000 now and in next year $6000, and then onwards amount increases by $1000 each year through year 20. If your investments earn 10%, the amount you will have at the end of year 20 is closest to:   |  |  |  |  | | --- | --- | --- | --- | | (a) $659,121 | (b) $721,396 | (c) $716,396 | (d) $750,051 | | **[1]** |
|  | For the following information below, in comparing alternatives, I and J by the present worth method, the equation that yields the present worth of alternative J is:     1. PW J = -250,000 + 40,000 (P/A, 15%, 6) + 35,000 (P/F, 15%, 6) 2. PW J = -250,000 + 26,000 (P/A, 15%, 6) + 35,000 (P/F, 15%, 6) 3. PW J = -250,000 - 26,000 (P/A, 15%, 6) + 35,000 (P/F, 15%, 6) 4. PW J = -250,000 + 26,000 (P/A, 15%, 6) - 35,000 (P/F, 15%, 6) | **[1]** |
|  |  |  |
|  | The concept that different sums of money at different points in time can be said to be equal to each other is known as:   |  |  |  |  | | --- | --- | --- | --- | | 1. Evaluation criterion | 1. Equivalence | 1. Cash flow | 1. Intangible factors | | **[1]** |
|  |  |  |
|  | GKX Industries expects sales of its hydraulic seals (in inch and metric sizes) to increase according to the cash flow sequence $70 + 4k, where k is in years.   1. What is the amount of the cash flow in year 3?  |  |  |  |  | | --- | --- | --- | --- | | 1. $74 | 1. $82 | 1. $96 | 1. $78 |  1. What is the equation to determine future worth of the entire cash flow series in year 10? Let i=10% per year.  |  | | --- | | 1. 70 + 4 (A/G, 10%, 10) | | 1. 70 (F/A, 10%, 10) + 4 (A/G, 10%, 10) (F/A, 10%, 10) | | 1. 70 + 4 (A/G, 10%, 10) (F/A, 10%, 10) | | 1. [70 + 4 (A/G, 10%,9)] (F/A, 10%, 9) | | **[2]** |