

Learning Objectives:

The candidate pursuant to qualifying in this exam shall be eligible to receive CFPCM certification subject to the fulfillment of the experience criterion and the adherence to laid down Code of Ethics and Professional Responsibility. Post certification, the candidate shall be entitled to work as CFPCM professional preparing, executing and reviewing financial plans of the clients. Thus, a candidate should be able to enter into an engagement with a client to provide services with respect to one or more components of financial planning or a comprehensive financial plan which may include its execution and review as well, under a laid down financial planning process.

Exam 5: Pattern of Questions in each Case Study											
		Section-I		Section -II		Section -III		Section -IV		Section -V	
		No_Items	Marks	No_Items	Marks	No_Items	Marks	No_Items	Marks	No_Items	Marks
Marks Category	2	2	4	1	2	0	0	1	2	1	2
	3	1	3	1	3	1	3	0	0	1	3
	4	0	0	1	4	0	0	1	4	0	0
	5	0	0	0	0	1	5	2	10	1	5
Total		3	7	3	9	2	8	4	16	3	10

Items per Case Study: 15 / Total Marks per Case Study: 50

Total items Exam 5: 30 / Total Marks Exam 5: 100

- △ Section – I: Financial Planning Process, Practice Standards and Professional Responsibility – 14%
- △ Section – II: Risk Analysis and Insurance Planning – 18%
- △ Section – III: Retirement Planning and Employee Benefits – 16%
- △ Section – IV: Investment Planning – 32%
- △ Section – V: Tax Planning and Estate Planning – 20%

Marks category	Significance	Grade	Total items	Total marks	Weight %
2-mark	Theoretical testing knowledge	'Grade 1'	5	10	20%
3-mark	Theoretical testing clarity of concepts or Numerical testing basic skills	'Grade 2'	4	12	24%
4-mark	Numerical testing analytical skills	'Grade 3'	2	8	16%
5-mark	Numerical testing advanced analytical skills, strategy evaluation & synthesis	'Grade 4'	4	20	40%
Total			15	50	100%

Interest Rate Calculation

Nominal Rate:	Basic rate which is without any adjustment or compounding
Effective Rate:	It is a compounded rate of return. Calculation: $Er = [(1 + r)^m - 1] \times 100$
Investment rates:	Investments always quote Annual Effective rate. E.g. equity shares, mutual funds, gold ETF, annuities etc.
Savings rate:	Savings quote Annual Nominal rate. E.g. bank FD, Postal Savings
Loan rate:	Rate of interest quote on loan is always Annual Nominal rate

Rules for Interest Rate

Rule 1: When investment is made every year, use Annual Effective rate as i/y

Rule 2: When investment is made M/Q/S, use M/Q/S nominal rate.

Note: The rates of return quoted on investment are the maximum return which can be achieved. So if we consider those rates as nominal our effective return will be more than the rate quoted, which is not possible.

Rule 3: When withdrawals are subject to inflation use fisher's real rate equation.

$$\text{Real rate} = [(1+r)/(1+i)] - 1$$

Where: r = rate of return, i = rate of inflation

For M/Q/S withdrawal we need M/Q/S nominal real rate.

Calculation for Retirement Planning

Step – 1:

Find the FV of current expenses

Rs.1000 is current monthly expense, inflation is 5% and retirement is after 25 years. In this case,

$$PV = -1000 \quad N=25 \quad i/y=5 \quad FV=3386$$

Hence, monthly requirement for the first month after retirement is Rs.3,386

Step-2:

Calculation of corpus. This stage requires management of annuity.

Assume post retirement life of 20 years, amount is required monthly and rate of return is 10%.

As the amount is required monthly we will have to adjust the rate of **MNRR**. So first calculate **AERR** = $[(1.1/1.05)-1]*100 = 4.76\%$

Using Interest Conversion function calculate **ANRR**, where c/y is 12: **4.66%**

So **MNRR** is $4.66/12 = 0.388\%$

PMT=3386(bgn) N=20*12=240 i/y=0.388 PV=5,30,025 (corpus)

Step-3:

Now the corpus becomes FV and next step is to **find monthly investment**

Assume same rate of return on investment as 15%

As investment is made at the monthly rest we need MNR. First calculate ANR using ICONV function. ANR: 14.06% hence MNR= $14.06/12 = 1.17\%$

FV=5,30,025 N=25*12=300 i/y=1.17 PMT(bgn)=193

Remember: Both withdrawals and investment are made at the beginning of the period.

Investment and Growing Annuity

When investment is in annuity and growing at a constant rate over a period of time, we are required to use the growing annuity function.

FV of GA factor = $[(1+r)^n - (1+g)^n]/(r-g)$

Where, r=rate of return and g=growth rate

Assume 10000 is the salary and 10% of the salary is invested every year. Salary is growing by 5% per year. If investment horizon is 10 years, Rate of return is 10%, the accumulated amount will be: $1000*19.30 = 19300$.

If the investment is made at the **beginning** of the period, the equation will be modified at bit

FV of GA factor = $(1+r)*[(1+r)^n - (1+g)^n]/(r-g)$

And hence the answer will be: $19300*1.10 = 21230$

Case where Withdrawal and Investment Overlaps

Such situation is normally observed in the goal of education planning. Let say Mr. A has a son who is 5 years today. He wants to plan for his son's graduation and post-graduation. Current cost of graduation is Rs. 1 lakh per annum for 3 years and of post-graduation Rs. 2 lakh per annum for 2 years. He will attend the college at an age of 18. Mr. A wants to make annual investments till the time his son completes graduation. Rate of return is 12% throughout and inflation is 10%. Find the amount of investment to be made.

In this case you can find an overlapping period which is of 4 years. In such cases we can compare everything at year zero.