



## **Investment Advisor Level 1**

Q1.

Find out the net worth of Mr.A whose details of assets and liabilities are as follows: Cash: Rs. 1000000 House: Rs. 6000000 PPF: Rs. 300000 Bonds: Rs. 500000 Equity: Rs. 400000 Vehicle loan: Rs. 400000 Home loan: Rs. 2000000 Insurance policy: Rs. 300000

- a) Rs. 5500000
- b) Rs. 6100000
- c) Rs. 7100000
- d) Rs. 6500000

Q2.

Find out the net worth of Mr.A whose details of assets and liabilities are as follows: Cash: Rs. 500000 House: Rs. 4500000 EPF: Rs. 400000 Bonds: Rs. 800000 Equity Mutual funds: Rs. 300000 Vehicle loan: Rs. 500000 Home loan: Rs. 3000000 Insurance policy: Rs. 500000 Real estate investments: Rs. 2500000

- a) Rs. 5000000
- b) Rs. 1000000
- c) Rs. 6000000
- d) Rs. 6500000

Q3.

Find out the current ratio: Cash: Rs. 500000 Liquid securities: Rs. 1000000 Long term assets: Rs. 5000000 Current liabilities: Rs. 1400000 Long term loans: Rs. 7000000

- a) 1.071
- b) 0.774
- c) 4.64
- d) 0.714

Q4.

Find out the current ratio: Cash: Rs. 700000 Marketable securities: Rs. 1500000 Long term assets: Rs. 6000000 Current liabilities: Rs. 1700000 Long term loans: Rs. 5000000

- a) 1.22
- b) 1.29
- c) 1.2
- d) 1.12

Q5.

Find out the savings ratio: Salary: Rs. 800000 Investment income: Rs. 200000 Household expenses: Rs. 400000 Insurance premium: Rs. 200000

- a) 0.25
- b) 0.5
- c) 0.4
- d) 0.6

Q6.

Find out the savings ratio: Salary: Rs. 1200000 Investment income: Rs. 500000 Household expenses: Rs. 500000 Insurance premium: Rs. 300000

- a) 0.71
- b) 0.53
- c) 0.33
- d) 0.58

Q7.

A bond is maturing in 5 years with a face value of Rs. 100. The coupon payable is 8% annually. If the interest rates rise to 10% next year, what will happen to the bond price?

- a) fall down to 98.18
- b) rise to 101.85
- c) will remain 100
- d) None of the above

Q8.

A bond is maturing in 10 years with a face value of Rs. 100. The coupon payable is 9% annually. If the interest rates rise to 11% next year, what will happen to the bond price?

- a) fall down to 91.31
- b) rise to 109.52
- c) will fall down to 98.19
- d) rise to 101.83

Q9.

A bond is maturing in 5 years with a face value of Rs. 1000. The coupon payable is 8% annually. If the interest rates fall to 7% next year, what will happen to the bond price?

- a) fall down to 954.55
- b) rise to 1047.61
- c) rise to 1009.34
- d) fall down to 990.74

Q10.

A citizen of US invested 2000 Rs. in a fixed income instrument in India with a coupon of 9% and maturity of one year. The dollar was quoting at Rs. 50. After one year, if rupee appreciates and dollar quotes at Rs. 45. What is the loss/profit that US citizen has made?

- a) Loss of 422.22 Rs.
- b) Profit of 422.22 Rs.

- c) Loss of 38Rs.
- d) Profit of 38 Rs.

Q11.

A citizen of US invested 3000 Rs. in a fixed income instrument in India with a coupon of 8% and maturity of one year. The dollar was quoting at Rs. 49. After one year, if rupee appreciates and dollar quotes at Rs. 46. What is the loss/profit that US citizen has made?

- a) Loss of 451.30 Rs.
- b) Profit of 41.63 Rs.
- c) Loss of 41.63Rs.
- d) Profit of 451.30 Rs.

Q12.

A citizen of US invested 1000 Rs. in a fixed income instrument in India with a coupon of 7% and maturity of one year. The dollar was quoting at Rs. 48. After one year, if rupee appreciates and dollar quotes at Rs. 52. What is the loss/profit that US citizen has made?

- a) Loss of 159.17 Rs.
- b) Profit of 12.31 Rs.
- c) Loss of 12.31Rs.
- d) Profit of 159.17 Rs.

Q13.

Monthly household expenses of Mr. A are Rs. 20000. Inflation is 8% and is expected to remain 8% over the next 10 years. How much amount per month would Mr. A approximately require after 10 years to maintain the same standard of living?

- a) 40000
- b) 20000
- c) 21600
- d) 43000

Q14.

Monthly household expenses of Mr. A are Rs. 30000. Inflation is 8% and is expected to remain 8% over the next 5 years. How much amount per year would Mr. A approximately require after 10 years to maintain the same standard of living?

- a) 360000
- b) 528960
- c) 571275
- d) 388800

Q15.

Find out the expected return of the following security.

| Probability | Expected return (%) |
|-------------|---------------------|
| 0.25        | 15                  |
| 0.4         | 12                  |
| 0.35        | -10                 |

- a) 12.05
- b) 4.02
- c) 5.05
- d) 5.67

Q16.

Find out the expected return of the following security.

| Probability | Expected return (%) |
|-------------|---------------------|
| 0.1         | -11                 |
| 0.5         | 15                  |
| 0.4         | 8                   |

- a) 12
- b) 9.6
- c) 11.8
- d) 10.7

Q17.

Find out the standard deviation of the following security.

| Probability | Expected return (%) |
|-------------|---------------------|
| 0.2         | 10                  |
| 0.4         | 12                  |
| 0.4         | 20                  |

- a) 18.56
- b) 344.47
- c) 14.8
- d) 4.3

Q18.

Find out the standard deviation of the following security.

| Probability | Expected return (%) |
|-------------|---------------------|
| 0.25        | 11                  |
| 0.3         | 17                  |
| 0.45        | 14                  |

- a) 18.07
- b) 344.47
- c) 4.95
- d) 4.93

Q19.

Find out the variance of the following security.

| Probability | Expected return |
|-------------|-----------------|
|-------------|-----------------|

|     |     |
|-----|-----|
|     | (%) |
| 0.2 | 10  |
| 0.4 | 12  |
| 0.4 | 20  |

- a) 18.56
- b) 344.47
- c) 14.8
- d) 4.3

Q20.

Find out the variance of the following security.

| Probability | Expected return (%) |
|-------------|---------------------|
| 0.25        | 11                  |
| 0.3         | 17                  |
| 0.45        | 14                  |

- a) 18.07
- b) 344.47
- c) 4.95
- d) 4.93

Q21.

Find out the beta of the following security.

| Probability | Expected return (%) | Market return |
|-------------|---------------------|---------------|
| 0.2         | 10                  | 15            |
| 0.4         | 12                  | 10            |
| 0.4         | 20                  | 12            |

- a) -0.19
- b) 0.19
- c) 0.036
- d) -0.036

Q22.

Find out the beta of the following security.

| Probability | Expected return (%) | Market return |
|-------------|---------------------|---------------|
| 0.25        | 11                  | 15            |
| 0.3         | 17                  | 10            |
| 0.45        | 14                  | 12            |

- a) 1.19
- b) -1.19
- c) 0.84
- d) -0.84

Q23.

Calculate the beta of a security which has a correlation of 0.80 with the market. Standard deviation of the security is 1.5 and that of the market is 1.1

- a) 1.091
- b) 0.587
- c) 2.063
- d) 0.485

Q24.

Calculate the beta of a security which has a correlation of 0.40 with the market. Standard deviation of the security is 2.4 and that of the market is 1.5

- a) 1.024
- b) 0.11
- c) 0.25
- d) 0.64

Q25.

A portfolio consists of the following securities in the ratio of 10:30:40:20 respectively. Security Returns Beta, A 10% 1.5, B 12.76% 1.22, C 11.5% 1.31, D -7% 0.75 Calculate the beta of the portfolio

- a) 0.40
- b) 1.195
- c) 1.19
- d) 1.20

Q26.

A portfolio consists of the following securities in the ratio of 20:10:50:20 respectively. Security Returns, Beta A -12% 0.56, B 8.54% 1.34, C 13.23% 1.11, D 8% 0.81 Calculate the beta of the portfolio

- a) 0.955
- b) 0.963
- c) 0.675
- d) 0.739

Q27.

Two securities A and B have a correlation of 0.90. Variance of security A is 400 and that of B is 900. Find out the covariance between the securities.

- a) 540
- b) 324000
- c) 569.21
- d) 666.67

Q28.

Two securities A and B have a correlation of 0.75. Variance of security A is 464 and that of B is 389. Find out the covariance between the securities.

- a) 135.372
- b) 318.63
- c) 367.93
- d) 566.46

Q29.

Variance of a security is 225. The un diversifiable risk of the security is 5.4. Calculate the unsystematic risk associated with the security.

- a) 14
- b) 9.6
- c) 5.4
- d) 20.4

Q30.

Variance of a security is 144. The un diversifiable risk of the security is 4.9. Calculate the unsystematic risk associated with the security.

- a) 4.9
- b) 1.69
- c) 7.1
- d) 16.9

Q31.

Mr. Anil wants to receive a sum of Rs. 2000000 after a period of 15 years at an annual return rate of 13%. What amount of sum will Mr. Anil have to invest?

- a) 319782
- b) 1769912
- c) 150667
- d) 833903

Q32.

Miss. Priya wants to receive a sum of Rs. 3000000 after a period of 12 years at an annual return rate of 14%. What amount of sum will Miss. Priya have to invest?

- a) 613859
- b) 2631579
- c) 622677
- d) 630000

Q33.

Mr.X is investing an amount of Rs. 500000.What amount will Mr.X receive after 10 years at an annual rate of return of 12%?

- a) 1552924
- b) 600000
- c) 1569214
- d) 1500000

Q34.

Calculate the EMI for a loan amount of Rs. 1000000 for a period of 10 years and an interest rate of 13% payable annually.

- a) 15358
- b) 113000
- c) 184290
- d) 100000

Q35.

Calculate the EMI for a loan amount of Rs. 800000 for a period of 8 years and an interest rate of 11% payable annually.

- a) 155456
- b) 12955
- c) 100000
- d) 347141

Q36.

Mr. X made an initial investment of Rs. 1000000. The cash inflows expected by him are as follows: Year Inflow 1 300000 2 100000 3 800000 4 500000 Calculate the payback period of the investment.

- a) 4 years
- b) 3 years and 9 months
- c) 3 years
- d) 2 years and 9 months

Q37.

Mr. X made an initial investment of Rs. 800000. The cash inflows expected by him are as follows: Year Inflow 1 200000 2 400000 3 400000 4 600000 Calculate the payback period of the investment.

- a) 3 years
- b) 2 years and 6 months
- c) 2 years
- d) 3 years and 6 months

Q38.

Mr. Sharma plans to invest Rs. 200000 every year for 15 years and expects a rate of return of 11% p.a. Calculate the value of the investment that Mr. Sharma will receive after 15 years.

- a) 3330000
- b) 6881072
- c) 956918
- d) 14353768

Q39.

Mr. Ram plans to invest Rs. 100000 every year for 20 years and expects a rate of return of 12% p.a. Calculate the value of the investment that Mr. Ram will receive after 20 years.

- a) 2240000



- b) 964629
- c) 7205244
- d) 7240000

Q40.

How much should Miss. Babita invest every year for the next 15 years to receive a sum of Rs. 7500000 after 15 years at a rate of 12%p.a.?

- a) 1370222
- b) 201182
- c) 560000
- d) 4466429

Q41.

Mrs. Ray bought a security at Rs. 200. After one year, she sold the security at Rs. 350. She also received dividend of Rs. 20. Find out the holding period return.

- a) 85%
- b) 49%
- c) 75%
- d) 65%

Q42.

Mr. Ghosh bought a security at Rs. 300. After one year, he sold the security at Rs. 380. He also received dividend of Rs. 50. Find out the holding period return.

- a) 26.67%
- b) 43.33%
- c) 34.21%
- d) 48%

Q43.

Mr.X bought a bond at a price of Rs.1000. He sold the bond at a price of Rs. 1300 the next year. He received a coupon of Rs. 100. Calculate the HPR of Mr. X.

- a) 30%
- b) 31%
- c) 40%
- d) 41%

Q44.

Mr. Uthappa made an initial investment of Rs. 200000. After 15 years he is to receive a sum of Rs. 1200000. The rate of interest is 11%. Find out the net present value.

- a) -50805
- b) -243082
- c) 50805
- d) 243082

Q45.

Mrs. Ponnu made an initial investment of Rs. 300000. After 20 years she is to receive a sum of Rs. 3000000. The rate of interest is 12%. Find out the net present value.

- a) -106112
- b) -11000
- c) 106112
- d) 11000

Q46.

Mr. X has invested in a fixed income security that earns a nominal return of 10%. However the inflation rate is 5%. Calculate the real rate of return.

- a) 4.76%
- b) -4.76%
- c) 5%
- d) -5%

Q47.

Mr. X has invested in a fixed income security that earns a nominal return of 8%. However the inflation rate is 6%. Calculate the real rate of return.

- a) 2%
- b) -1.89%
- c) 1.89%
- d) -2%

Q48.

A nominal of 11% compounded monthly will have an equivalent annual effective rate of interest of:

- a) 12.57%
- b) 8.73%
- c) 11%
- d) 11.57%

Q49.

A nominal of 13% compounded quarterly will have an equivalent annual effective rate of interest of:

- a) 12.38%
- b) 13.65%
- c) 13%
- d) 13.80%

Q50.

A nominal of 12% compounded half yearly will have an equivalent annual effective rate of interest of:

- a) 6%
- b) 12.55%
- c) 12%
- d) 12.36%

Q51.

An investment earns a return of 12%. The tax rate applicable is 30% and inflation rate is 4%. Calculate the real rate of return.

- a) -5.38%
- b) 5.38%
- c) 4.23%
- d) -4.23%

Q52.

An investment earns a return of 14%. The tax rate applicable is 35% and inflation rate is 5%. Calculate the real rate of return.

- a) -5.57
- b) 3.90
- c) 5.57
- d) -3.90

Q53.

An investment earns a nominal return of 15%. The tax rate applicable is 30%. The real rate of return is 6%. Find out the inflation rate.

- a) -4.5%
- b) 4.5
- c) -4.25%
- d) 4.25

Q54.

In a certain fund, Rs. 15000 invested for five years grows to Rs. 25000. The investment does not have any other cash flows. Find out the IRR.

- a) 9.71%
- b) 10.76%
- c) 13.34%
- d) 6.67%

Q55.

In a certain fund, Rs. 20000 invested for seven years grows to Rs. 36000. The investment does not have any other cash flows. Find out the IRR.

- a) 11.43%
- b) 8%
- c) 8.76%
- d) 7.62%

Q56.

A fund has an investment of Rs. 100000. The cash flows expected in first, second and third years are 75000, 50000 and 70000 respectively. Find out the IRR.

- a) -14.28%
- b) 14.28%
- c) -44%
- d) 44%

Q57.

A fund has an investment of Rs. 200000. The cash flows expected in first, second and third years are 50000, 80000 and 100000 respectively. Find out the IRR.

- a) 7%
- b) -7%
- c) 15%
- d) -15%

Q58.

Calculate the expected return using CAPM for a security having a beta of 1.7 Market return: 12% Risk free rate: 8%

- a) 6.8%
- b) 14.8%
- c) 12%
- d) 5.2%

Q59.

Calculate the Sharpe ratio for a portfolio which has a beta of 1.4 . Market return: 15% Risk free rate: 8% Variance of the portfolio: 2.5

- a) 3.92
- b) 6.198
- c) 7
- d) 4.427

Q60.

Calculate the Sharpe ratio for a portfolio which has a beta of 1.6 . Market return: 12% Risk free rate: 8% Variance of the portfolio: 2.2

- a) 2.91
- b) 9.71
- c) 4.31
- d) 6.55

Q61.

Find out the variance of a portfolio which has a return of 15% and a sharpe ratio of 5. Assume a risk free rate of 8%

- a) 3.5
- b) 12.25
- c) 1.40
- d) 1.96

Q62.

Find out the variance of a portfolio which has a return of 18% and a sharpe ratio of 6. Assume a risk free rate of 9%

- a) 1.5
- b) 2.25
- c) 3
- d) 9

Q63.

Find out the Treynor ratio of a portfolio having a beta of 1.4. The market return is 10% and risk free return is 7%

- a) 7.14
- b) 5
- c) 2.14
- d) 3

Q64.

Find out the Treynor ratio of a portfolio having a beta of 1.6. The market return is 12% and risk free return is 8%

- a) 6.4
- b) 7.5
- c) 4
- d) 2.5

Q65.

Find out the beta of a portfolio having a return of 12% and risk free return of 6%. Treynor ratio is 2.

- a) 3
- b) 6
- c) 9
- d) 2

Q66.

Find out the beta of a portfolio having a return of 14% and risk free return of 8%. Treynor ratio is 4.

- a) 6
- b) 1.5
- c) 3.5
- d) 2

Q67.

Find out the Jensen's alpha of a portfolio whose actual return is 14%. The expected return of the portfolio was 16%.

- a) 2%
- b) -2%
- c) 4%
- d) -4%

Q68.

Find out the Jensen's alpha of a portfolio whose actual return is 15%. The expected return of the portfolio was 11%.

- a) 4%
- b) -4%
- c) 2%

d) -2%

Q69.

Mr. Ravi bought a house in February 2003 for Rs. 200000 and sold in March 2008 for Rs. 800000. The treatment for gains on capital asset as for tax aspect is 10% without indexation or 20% with indexation. Find out the capital gains tax. (CII\* for various Financial Years are 2002-03: 447; 2003-04: 463; 2007-08: 551; 2008-09: 582)

- a) 60000
- b) 110693.5
- c) 112397.4
- d) 107919.5

Q70.

Priyank is earning Rs. 1200000 p.a. and expects his income to increase at a rate of 4% every year. He has 10 years of working life left and expects a growth of 10% on his investments. Calculate the insurance he needs as per human life value method.

- a) 14407328.55
- b) 5554648.84
- c) 8586034.985
- d) 684837.90

Q71.

Uma is earning Rs. 1500000 p.a. and expects her income to increase at a rate of 6% every year. She has 12 years of working life left and expects a growth of 11% on her investments. Calculate the insurance he needs as per human life value method.

- a) 22797218
- b) 12744963
- c) 88527984
- d) 25304912

Q72.

Mr. Kapoor has net monthly expenses of Rs. 15000. His current age is 25 years and his life expectancy is 80 years. The expected inflation is 5% and his expected return is 7%. How much insurance does Mr. Kapoor require according to need based approach?

- a) 49088271
- b) 6218621
- c) 1188146
- d) 1271317

Q73.

The rate of return on a bank fixed deposit is 10 % p.a. The current inflation rate is 6 % p.a. Calculate the real rate of return on the bank FD.

- a) 10%
- b) 4%
- c) 6.67%
- d) 3.77%

Q74.

Ravi earns Rs. 70000 per month and his monthly expenses are Rs. 25000. He is 30 years old and will retire at the age of 60. He wants to continue the same standard of living as he enjoys today. Assuming an inflation rate of 7% p.a., How much will be Ravi's yearly expenses once he retires?

- a) 342551
- b) 190306
- c) 4110612
- d) 2283672

Q75.

Raj earns Rs. 1200000 p.a. and his expenses are Rs. 600000. He is 28 years old and will retire at the age of 60. He wants to continue the same standard of living as he enjoys today. Assuming an inflation rate of 8% p.a., How much will be Raj's monthly expenses once he retires?

- a) 7042250
- b) 586854
- c) 648000
- d) 1173708

Q76.

Mr. Rajeev opened PPF account on 21st March 2003 and has a balance of Rs. 320000 as on 31st March 2010. He will contribute the maximum amount that can be invested in a financial year for the remaining years in the beginning of April every year starting from April 2010. How much amount is to be contributed in the remaining years?

- a) 560000
- b) 490000
- c) 630000
- d) 320000

Q77.

Mr. Rajeev opened PPF account on 21st March 2003 and has a balance of Rs. 320000 as on 31st March 2010. He will contribute the maximum amount that can be invested in a financial year for the remaining years in the beginning of April every year starting from April 2010. Find out the maturity value of the PPF account.

- a) 880000
- b) 1396427
- c) 1124129
- d) 1583741

Q78.

Miss Prateeksha has invested in a NSC of Rs. 100000. What will be the maturity value of the NSC that she will receive for one term?

- a) 158687
- b) 126532
- c) 160103
- d) 153064

Q79.

Mr. Radhakrishnan has a residential property which is valued by a bank's empanelled valuer at Rs. 7500000. He just celebrated his 60th birthday last week and his wife turns 59 today. They had jointly purchased the property 1 yr back with clear title and the building has a residual life of 15 years. The property is their permanent residence and they are occupying it. All other conditions required, which are not mentioned above, are satisfied by the couple. If they want to enter into a reverse mortgage today, what is the eligible amount they are entitled to each month if they do not want the lump sum amount in the beginning?

- a) Nothing, since the wife is not above 60
- b) Nothing, since they purchased the property only a year back
- c) Nothing, since it is not a commercial property.
- d) Nothing, since the residual life of the property is 15 years
- e) Rs. 500000

Q80.

Ms Apurva is running a successful business related to exports of garments. In the financial year, she made a lot of profits due to depreciation of rupee. Consequently her personal net wealth has risen 100% to 3500000. Will she have to pay wealth tax?

- a) No, since it is her personal net wealth and not of the firm
- b) Yes, since net wealth exceeds 3000000
- c) No, since exporters are exempt as they bring foreign exchange
- d) Yes, since her wealth has risen by 100% irrespective of her personal networth



## Answers

|    |   |    |   |    |   |    |   |
|----|---|----|---|----|---|----|---|
| 1  | b | 21 | a | 41 | a | 61 | d |
| 2  | c | 22 | b | 42 | b | 62 | b |
| 3  | a | 23 | a | 43 | c | 63 | c |
| 4  | b | 24 | d | 44 | c | 64 | d |
| 5  | c | 25 | c | 45 | d | 65 | a |
| 6  | b | 26 | b | 46 | a | 66 | b |
| 7  | a | 27 | a | 47 | c | 67 | b |
| 8  | c | 28 | b | 48 | d | 68 | a |
| 9  | c | 29 | b | 49 | b | 69 | a |
| 10 | b | 30 | c | 50 | d | 70 | c |
| 11 | d | 31 | a | 51 | c | 71 | b |
| 12 | c | 32 | c | 52 | b | 72 | b |
| 13 | d | 33 | a | 53 | d | 73 | d |
| 14 | b | 34 | c | 54 | b | 74 | d |
| 15 | c | 35 | a | 55 | c | 75 | b |
| 16 | b | 36 | d | 56 | d | 76 | a |
| 17 | d | 37 | b | 57 | b | 77 | b |
| 18 | c | 38 | b | 58 | b | 78 | c |
| 19 | a | 39 | c | 59 | b | 79 | b |
| 20 | d | 40 | b | 60 | c | 80 | b |