Financial planning Extra Question

Que. 1) Vijay spends 12% of his income on travelling and paying bills and 18% on food each month. If the amount left with him is Rs. 31,500, then find his monthly income (4M)

Ans: Let the monthly income of Vijay be Rs. x.

Vijay spend 12% on travelling and paying bills and 18% on food.

∴ Total expenditure = (12% + 18%) of x. = 30% of x = $\frac{30}{100}$ x

$$= 0.3 x$$

Amount left with Vijay is Rs. 31, 500.

∴ Amount left with Vijay = Income Expenditure

$$31500 = x - 0.3x$$

$$31500 = 0.7x$$

$$\therefore X = \frac{31500}{0.7} = \frac{31500 \times 10}{0.7 \times 10}$$

$$=\frac{315000}{7}$$

- =45,000
- ∴ The monthly income of Vijay is Rs. 45,000.
- 2) Amita invested some part of 35,000 rupees at 4% and the rest at 5% interest for one year. Altogether her gain was Rs. 1530. Find out the amounts she had invested at the two different rates. Write your answer in words. (5 marks)

Solⁿ: Let the amount invested at the rate of 4% and 5% be Rs. x and Rs. y respectively.

According to the first condition total amount invested = Rs. 35000

$$x + y = 35000 \dots (I)$$

According to the second condition, total interest received at 4% and 5% Rs. 1530

$$4\%$$
 of $x + 5\%$ of $y = 1530$

$$\therefore \frac{4}{100} \times x + \frac{5}{100} \times y = 1530$$

$$4x + 5y = 1,53,000$$
(II)

Multiply equation (i) by 4, we get.

$$4x + 4y = 1, 40, 000 \dots (III)$$

Subtracting equation (iii) from (ii),

Substituting y = 13000 in equation (i),

$$x + 13000 = 35000$$
$$x = 35000 - 13000$$
$$= 22000$$

- ∴ Amita invested Rs. 22000 at the rate of 4% and Rs. 13000 at the rate of 5%
- 3) Alka spends 90% of the money that she receives every month, and saves Rs. 120, how much money does she get monthly?

Ans: let Alka's monthly income be Rs. x

Alka spends 90% of the money that she receives every month

 \therefore Amount spent by Alka = 90% of x

$$= \frac{90}{100} \times x$$
$$= 0.9x$$

Now, savings = Income - expenditure

$$\therefore 120 = x - 0.9x$$

$$120 = 0.1x$$

$$\therefore \mathbf{x} = \frac{120 \times 10}{0.1 \times 10}$$

$$x = 1200$$

- ∴ Alka gets Rs. 1200 monthly.
- 4) Sameera spent 90% of her income and donated 3% for socially useful causes. If she was left with Rs. 1750 at the end of the month, what was her actual income? (3M)

Solⁿ: Let the actual income of Sameera be Rs. x

Sameera spent 90% her income and donated 3%

∴ Sameera's total expenditure

$$= (3\% + 90\%) \text{ of } x$$

$$= 93\%$$
 of x

$$=\frac{93}{100} \times x$$

$$= 0.93x$$

Now, saving = Income - expenditure

$$1750 = x - 0.93x$$

$$1750 = 0.07x$$

$$\therefore x = \frac{1750}{0.07} = \frac{1750 \times 100}{0.07 \times 100}$$
$$= \frac{175000}{7} = 25000$$

- ∴ The actual income of sameera is Rs. 25000
- 5) Pooja invested Rs. 75,000 in a bank at 7% compound interest.

What will be the total amount after 2 years?

Ans: Principal,
$$p = ₹ 75,000$$

Rate of interest, r = 7%

Number of years, n = 2 years.

Amount, A = p
$$\left[1 + \frac{r}{100}\right]^n$$

= 75, 000 $\left[1 + \frac{7}{100}\right]^2$
= 75, 000 $\left[\frac{107}{100}\right]^2$
= 75, 000 $\times \frac{107}{100} \times \frac{107}{100}$
 \therefore A = 85867.50

∴ Pooja will get ₹ 85867.50 after 2 years.

6) Raj spends 25% of his monthly income for house rent, 15% for education, 45% for food and clothing. Even then he saves ₹ 1200 per month. Find his monthly income. (4 marks)

Ans : let the monthly income of Raj be ₹ x total expenditure

=
$$(25 + 15 + 45) \%$$

= 85%
:: Savings = $(100 - 85) \%$
= 15%

But he saves ₹ 1200 per month.

$$∴ 15\% \text{ of x is} = ₹ 1200.$$

$$\therefore \frac{15}{100} \times x = 1200$$

$$\therefore X = \frac{1200 \times 100}{15}$$

$$\therefore \mathbf{x} = 8000$$

- ∴ Monthly income of Raj is ₹ 8,000
- 7) Nikhil spent 5% of his monthly income on his children's education invested 14% in shares deposited 3% in a bank and used 40% for his daily expenses. He was left with a balance of ₹ 19,000. what was his income that month? (3M)

Ans: Let the monthly income of Nikhil be χ .

Nikhil's total expenditure and investments

$$= (5 + 14 + 3 + 40)\%$$
 of monthly income

= 62% of monthly income

Amount left with Nikhil after expenditure and investments.

= (100 - 62)% of monthly income.

But, ₹19,000 is left with Nikhil afters expenditure and investment (Given)

$$\therefore$$
 38% of x = ₹ 19,000

8) What are the unpredictable expenses that each of us has to meet in our life? (2M)

Ans: Unpredictable expenses are as follows:

- 1) Natural disasters
- 2) Medical expenses for a family member
- 3) Loss due to an accident
- 4) Sudden death.
- 9) Mr. Shah invested Rs. 3,20, 000 in a bank at 10% compound interest. He also invested Rs. 2,40,000 in mutual 3,05,000 after 2

years. How much did he gain? Which of his investments was more profitable? (4M)

Ans: i) we shall first calculate the compound interest on the money invested in the bank.

Compound interest = amount - principal.

That is,
$$I = A - P$$

$$= P \left| 1 + \frac{r}{100} \right|^n - p$$

$$= P \left[\left| 1 + \frac{r}{100} \right|^n - 1 \right]$$

$$=3, 20, 000 \left| \left(1 + \frac{10}{100}\right)^2 - 1 \right|$$

$$=3, 20, 000 |(1.1)^2 - 1|$$

$$= 3, 20, 000 |1.21 - 1|$$

$$=3,20,000\times0.21$$

= 67, 200 Rupees.

Mr. Shah invested Rs. 3.20,000 in the bank and got Rs. 67, 200 as interest.

Let, us see percentage of interest obtained on the investment.

Percentage of interest =
$$\frac{100 \times 67,200}{3,20,000}$$
$$= 21$$

- ∴ The investment in the bank gave a profit of 21%
- ii) The amount Mr. shah got at the end of 2 years from the mutual fund = 3,05,000

The gain from the mutual fund= 3, 05, 000 - 2, 40,000

$$= 65$$
, rupees.

∴ percentage gain =
$$\frac{65,000 \times 100}{2,40,000}$$
 = 27.08

The investment in the mutual fund yielded a profit of 27.08%

It is clear that Mr. Shah's investment in the mutual fund was more profitable.

10) Mr. Shaikh invested Rs. 4,00,000 in a glass industry. After 2 years he received Rs. 5, 20, 000 from the industry. Putting aside the original investment, he invested his gains in a fixed deposit and in shares in the ratio 3:2 How much amount did he invested originally in each of the schemes? (3M)

Ans: Mr. Shaikh's profit at the end of 2 years

$$= 5,20,000 - 4,00,000$$

= 1,20,000 rupees.

Amount invested in the fixed = $\frac{3}{5} \times 1$, 20, 000

$$= 3 \times 24,000$$

= 72,000 rupees

Amount invested in shares =
$$\frac{2}{5} \times 1$$
, 20, 000
= 2 × 24, 000
= 48, 000. Rupees.

Mr. Shaikh invested 72,000 rupees in the fixed deposit and 48, 000 rupees in shares.

11) The ratio of Mr. Anil's monthly income to expenditure in 5:4, for Mr. Aman the same figure is 3:2 Also, 4% of Aman's monthly income is equal to 7% of Anil's monthly income If Anil's monthly expenditure is 96,000 rupees. i) find Aman's annual income ii) Saving made by Mr. Anil and Mr. Aman (5 Mark)

Ans: we know that,

saving = Income - expenditure.

Ratio of Anil's monthly income to expenditure is 5:4

Suppose Anil's income is 5x

Anil's expenditure is 4x

Ratio of Aman's monthly income to expenditure is 3:2

Suppose Aman's income is 3y.

Anil monthly income is 9600 rupees.

$$\therefore 5x = 9600$$

$$x = 1920$$

Monthly expenditure = $4x = 4 \times 1920$

= 7680 rupees.

Anil monthly expenditure is 7680 rupees.

∴ Anil saving is 1920 rupees.

4% of Aman's income = 7% Anil's income

$$\therefore \frac{4}{100} \times 3y = 9600 \times \frac{7}{100}$$

$$\therefore 12y = 9600 \times 7$$

$$\therefore y = \frac{9600 \times 7}{12}$$

∴
$$y = 5600$$

Aman's income =
$$3y = 3 \times 5600$$

= 16, 800 rupees.

Aman's expenditure = $2y = 2 \times 5600$

= 11, 200 rupees.

: Aman's saving = 16,800 - 11,200

= 5, 600 rupees.

Aman's monthly income is Rs. 16, 800 and Aman's saving is Rs. 5,600 Anil monthly saving is 1,920 rupees.

12) What is direct tax? Give the examples of direct taxes. (2Mark)

Ans: Taxes which are paid directly by the taxpayer are called direct taxes.

Examples: Income tax, wealth tax, professional tax, etc.

13) What is indirect taxes? Give the examples of indirect taxes.

(2Mark)

Ans: Taxes which are not paid directly by the taxpayer are called indirect taxes.

Examples: central sales tax, value added tax, service tax, excise duty, customs duty, etc.

14) What is mean by Assessment year? (1Mark)

Ans: The financial year immediately following a particular financial year is called the assessment year.

15) What is meant by financial year? (1 Mark)

Ans: The period of one year during which the taxable income has been earned is called a financial year. In our country, at present, the financial year is from 1st April to 31st March.

16) What is the full form of PAN? (1Mark)

Ans: The full form of PAN is Permanent Account Number.

17) What is the tax free amount for the individual's up to the age of 60 years? (1Mark)

Ans: The tax free amount for the individuals up to age of 60 years is up to 2,50,000.

18) What is the percentage of education cess on income tax? (1M)

Ans The percentage of education cess on income tax is 2%

19) What is the surcharge percentage payable by individuals having an annual income of 50 lakh. (1m)

Ans: The surcharge percentage payable by individuals having an annual income of 50 lakh is 10% of income tax.

20) What is the tax-free amount for senior citizen up to age 60 to 80 years? (1M)

Ans: The tax-free amount for senior citizens up to age 60 to 80 years is up to 3, 00,000.

21) What is the surcharge percentage payable by individuals having an annual income greater than one crore rupees? (1M)

Ans: The surcharge percentage payable by individuals having an annual income greater than one crore rupees is 15%.

22) What is the tax free amount for super senior citizens for the age above 80 years? (1M)

Ans: The tax-free amount for super senior citizens for the age above 80 years is up to 5,00,000.

23) What is the maximum permissible deduction to various kinds of savings under section 80C? (1M)

Ans: The maximum permissible deduction to varioius kinds of saving under section 80C is of Rs. 1,50,000

24) What is the full form of NSC? (1 M)

Ans: The full form of NSC is National Saving certificate scheme.

25) Mr. Ahmed, a 62 year old senior citizens is employed in a private company. His total annual income is Rs. 6,20,000. He has

contributed Rs. 1,00,000 to the public provident fund and paid a premium of Rs. 80,000 for the year for health insurance and a donation of Rs. 10,000 to CM'S Relief fund. What is tax payable?

Ans: 1) Total Yearly income = 6,20,000 rupees.

- 2) Total deduction (According to 80c)
- i) public provident fund = 1, 00, 000 rupees.
- ii) Insurance = 80,000 rupees.

Total deduction = 1, 80, 000 rupees.

- iii) Section 80c permits a maximum deduction of Rs. 1,50,000 rupees.
- 3) Amount given to CM's Relief fund (According to 80G) = 1000 rupees.

4) Taxable income =
$$(1) - [(2) + (3)]$$

= $6,20,000 - [1,50,000 + 10,000]$
= $4,60,000$ rupees

From table II we see that the taxable income is in the slab 3 lakh to 5 lakh rupees.

∴ Income tax = (Taxable income – 3,00,000)
$$\times \frac{5}{100}$$

$$= (4,60,000 - 3,00,000) \times \frac{5}{100}$$

$$=1,60,000 \times \frac{5}{100}$$

= 8000 rupees.

Education cess is levied on income tax.

Education cess =
$$8,000 \times \frac{2}{100} = 160$$

Secondary and higher education cess:

$$8,000 \times \frac{1}{100} = 80$$

 $\therefore \text{ Total Income tax} = 8000 + 160 + 80$

∴ tax payable by Mr. Ahmed is ₹ 8,240.

26) Mrs. Hinduja's age is 50 years. Last year her taxable income was Rs. 16,30,000. How much income tax has to pay?

Ans: Mrs. Hinduja's taxable income is in the bracket of Rs. 10,00,000 and above.

Let us use table I to compute her income tax. According for income greater than Rs. 10, 00,000.

Income tax = Rs. 1,12,500 + 30% of total income minus Ten lakh.

Mrs. Hinduja's income minus = 16,30,00-10,00,000 ten lakh 10, 00, 000 = 6,30, 000 rupees.

From table I,

Income tax =
$$1,12,500 + 6,30,000 \times \frac{30}{100}$$

= $1,12,500 + 30 \times 6,300$
= $1,12,500 + 1,89,000$
= $3,01,500$ rupees.

On this we compute,

1% secondary and higher education cess

$$= \frac{1}{100} \times 3,01,500$$
$$= 3015$$

2% education cess =
$$\frac{2}{100} \times 3,01,500$$

= Rs. 6030

$$\therefore$$
 Total income = 3, 01, 500 + 3015 + 6030 = 3, 10, 545

∴ total income tax payable is 3,10,545 rupees.

27) observe the table given below. Check and decide whether the individuals have to pay income tax. (1M)

Ans:

Sr.	Individuals	Age	Taxable income	Will have to pay
No.				income tax
1)	Miss Nikita	27	₹ 2, 34, 000	NO
2)	Mr. Kulkarni	36	₹ 3, 27,000	YES
3)	Miss Mehta	44	₹ 5, 82, 000	YES
4)	Mr. Bajaj	64	₹ 8, 40,000	YES
5)	Mr. Desilva	81	₹ 4, 50, 000	NO

32) Mr. Kartarsing (age 48 years) works in a private company. His monthly income after deduction of allowances is Rs. 42,000 and every month he contributes Rs. 3000 to GPF. He has also bought Rs. 15,000 worth of NSC (National savings certificate) and donated Rs. 12,000 to the PM's Relief fund compute his income tax (5M)

Ans: 1) Total yearly income of Mr. Kartarsingh

2) Deduction:

80G and 80D	80C (up to 1,50,000)	
(upto 100%)		
PM's Relief fund = 1200	G.P.E	
	$(3000 \times 12) = 36,000$	
	NSC = 15000	
₹ 1200	₹ 51000.	

- 3) Total deduction = 12000 + 51000= ₹ 63,000
- 4)Taxable income = Total yearly income Total deductions = 5,04,000 - 63,000= ₹ 4,41,000
- 5) from table I, taxable income is in the slab 2,50,001 to 5,00,000.
- ∴ Income tax = (taxable income 2,50,000) × $\frac{5}{100}$ = (4,41,000 – 2,50,000) × $\frac{5}{100}$ = 1,91,000 × $\frac{5}{100}$ = ₹ 9550

Education cess = 2% of income tax

$$= 9550 \times \frac{2}{100}$$
$$= ₹ 191$$

Secondary and Higher education cess = 1% of income tax

$$= 9550 \times \frac{1}{100}$$
$$= 95.50$$

Total income tax =
$$9550 + 191 + 95.50$$

= $₹ 9836.50$

- ∴ Mr. Kartarrsingh has to pay income tax of ₹ 9836.50
- 33) Compute the income tax payable by Mr. Kadam who is 35 years old and has taxable income of ₹ 13, 35, 000 (4M)

Ans : Taxable income = ₹ 13,35,000

From table I, taxable income is above 10,00,000 and age is 35 years.

- : Income tax = ₹ 1,12,500 + 30% of (13,35,000 10,00,000)
- ∴ Income tax = 1,12, 500 + 3,35,000 × $\frac{30}{100}$ = 1,12, 500 + 1,00, 500 = ₹ 2, 13, 000

Education cess = 2% of income tax

$$= 2, 13,000 \times \frac{2}{100}$$

Secondary and Higher Education cess = 1% of income tax

$$= 2,13,000 \times \frac{1}{100}$$
$$= ₹ 2130$$

- ∴ Total Income tax = 2,13,000 + 4260 + 2130= ₹ 2,19,390.
- ∴ Mr. kadam has to pay income tax of ₹ 2,19,390
- 34) Mr. Khan is 65 years of age and his taxable income is ₹ 4,50,000 (4M)

Ans: Taxable income = ₹4,50,000.

From table II, taxable income is in the slab 3,00,001 to 5,00,000.

Age = 65 years.

∴ Income tax = (taxable income – 3,00,000) ×
$$\frac{5}{100}$$

= (4,50,000 – 3,00,000) × $\frac{5}{100}$
= 1,50,000 × $\frac{5}{100}$

Education cess = 2% of income tax.

= ₹ 7500

$$=7500 \times \frac{2}{100}$$

Secondary and Higher education cess = 1% of income tax

$$=7,500 \times \frac{1}{100}$$

 \therefore Total income tax = 7500 + 150 + 15

- ∴ Mr. Khan has to pay income tax of ₹ 7725
- 35) Miss Varsha (Age 26 years) has a taxable income of ₹ 2,30,000

(3M)

Ans: Age of Varsha is 26 years

taxable income = ₹ 2,30,000.

According to table I, income tax up to income ₹ 2,50,000 is nil.

Here, Income ₹ 2,30,000 < ₹ 2,50,000

- ∴ Varsha is not liable to pay income tax.
- 36) Observe the table given below. Check and decide whether the individuals have to pay income tax.

Ans:

Sr.	Individuals	Age	Taxable income	Will have to pay
No.				income tax not
1)	Miss Seema	25	2,20,000	NO
2)	Mr. Anand	32	2,85,000	YES
3)	Mrs Bhagwan	82	5,35,000	YES
4)	Mrs. Shahane	67	3,00,000	NO
5)	Mr. Ejaj	40	4,80,000	YES

37) Mr. Shekhar spends 60% of his income. From the balance he donates ₹ 300 to an orphanage. He is then left with ₹ 3,200. What is his income? (3M)

Ans: Let the income of shekhar be \mathbb{Z} x.

Shekhar spends 60% of his income

- \therefore Shekhar's expenditure = 60% of x
- \therefore Amount remaining with Shekhar = (100-60) % of x

$$= 40\% \text{ of } x$$

$$=\frac{40}{100}x$$

$$= 0.4x$$

From the balance left, he donates ₹ 300 to an orphanage.

 \therefore Amount left with shekhar = 0.4x - 300

Now the amount left with him is ≥ 3200

$$\therefore 3200 = 0.4x - 300$$

$$\therefore 0.4x = 3500$$

$$\therefore x = \frac{3500}{0.4}$$

$$= \frac{3500 \times 10}{0.4 \times 10}$$

$$= 35000$$

$$= 8750$$

- ∴ The income of Mr. Shekhar is ₹ 8750.
- 38) A person has earned his income during the financial year. 2017-18. Then his assessment years is (1M)

39) At the start of a year there were ₹24,000 in a saving account. After adding ₹ 56,000 to this the entire amount was invested in the bank at 7.5% compound interest, what will be the total amount after 3 years? (3M)

$$R = 7.5\%$$
; $n = 3$ years.

Total amount after 3 years =
$$P \left[1 + \frac{R}{100} \right]^2$$

= $80,000 \times \left[1 + \frac{7.5}{100} \right]^2$
= $80,000 (1 + 0.075)^3$
= $80,000 \times 1.242297$
= 99383.76

- ∴ The total amount after 3 years is ₹ 99383.76.
- 40) Mr. Manohar gave 20% of his income to his elder son and 30% to his younger son. He gave 10% of the balance income as donation to a school. He still had ₹ 1,80,000 for himself. What was Mr. Monohar's income? (3M)

Ans : - Let the income of Mr. Manohar be $\exists x$

Amount given to elder son = 20% of x

Amount given to younger son = 30% of x

: Total amount given to both sons

$$= (20 + 30) \% \text{ of } x$$

$$= 50\% \text{ of } x$$

: Amount remaining with Mr. Manohar

$$= (100-50) \% x$$

$$= 50\% \text{ of } x$$

$$=\frac{50}{100}\times x$$

$$= 0.5x$$

He gave 10% of the balance income as donation to a school.

Amount donated to school = 10% of 0.5x

$$=\frac{10}{100}\times0.5x$$

$$=0.05x$$

: Amount remaining with Mr. Manohar after donating to School

$$=0.5x-0.05x$$

$$= 0.45x$$

Mr. Manohar still had 1, 80,000 for himself after donating to school.

$$\therefore 1,80,000 = 0.45x$$

$$\therefore X = \frac{1,80,000}{0.45} = \frac{1,80,000 \times 100}{0.45 \times 100}$$

$$=\frac{1,80,000,00}{45}$$

=4,00,000

- ∴ The income of Mr. Manohar is ₹ 4,00,000
- 41) Kailash used to spend 85% of his income when his income increased by 36% his expenses also increased by 40% of his earlier expenses. How much percentage of earning he saves now? (4M)

Ans : - Let the income of Kailash be $\mathfrak{T}x$

Kailash spends 85% of his income.

 \therefore Kailash's expenditure = 85% of x

$$= \frac{85}{100} \times x$$
$$= 0.85x$$

Kailash's income increased by 36%

 \therefore Kailash's new income = x + 36% of x

$$= x + \frac{36}{100} \times x$$

$$= x + 0.36x$$

$$= x + 0.36x$$

$$= 1.36x$$

Kailash's expenses increased by 40%

∴ Kailash's new expenditure =

$$= 085x + 40\% \text{ of } 0.85x$$

$$= 085x + \frac{40}{100} \times 0.85x$$

$$= 0.85x + 0.4 \times 0.85x$$

$$= 0.85x (1 + 0.4)$$

$$= 0.85x \times 1.4$$

$$= 1.19x$$

∴ Kailash's new savings = Kailash's new income – kailash's new expenditure

$$= 1.36x - 1.19x$$

$$=0.17x$$

Percentage of kailash's new = $\frac{0.17}{1.36x} \times 100$

$$= 12.5\%$$

- ∴ Kailash saves 12.5% of his new earning.
- 42) If, P=30,000 R= 8% , N=5, then find the simple interest. (2 marks)

Ans: Given, P=30,000 R= 8%, N=5,

We know that,

S.I.=
$$\frac{P \times R \times N}{100}$$

= $\frac{30,000 \times 8 \times 5}{100}$
= $300 \times 8 \times 5$
= 300×40
= $12,000$

- ∴ Simple interest is 12,000 rupees.
- 43) The ratio of Sam's monthly savings to expenditure is 2:7 His monthly income is ₹ 72,000. Complete the following activity.

Ans : Sam's monthly income = ₹ 72,000.

Saving: Expenditure = 2:7

∴ Sam's monthly saving =
$$\frac{2}{2+7}$$
 × 72,00

$$=\frac{2}{9}\times 72,000$$

∴ Sam's monthly Expenditure = $\frac{7}{2+7}$ × 72,000

$$= \boxed{\frac{7}{9}} \times 72,000$$
$$= \boxed{\$56000}$$

: Percentage of Sam's saving per month

$$= \frac{16000}{72000} \times 100$$

$$= 22.22\%$$

44) What is saving?

Ans :- After spending on the necessities of the present, everyone tries to save money for future expenses. The saved amount is known as savings.

45) Under section 80D, which things are exempted from taxation?

Ans: - Under section 80D, instalment's of premium for health insurance are exempt from taxation.

46) For different types of investments what is the maximum permissible amount under section 80C of income tax?(1M)

47) Income tax is levied under which two acts? (2M)

Ans: i)Income Tax Act 1961 which come into force on 01.04.1962

ii) The act passed every year by parliament which makes financial provisions.

48) What is the full form of PLI? (1M)

Ans: The full form of PLI is Postal Life Insurance.

49) What is the full of R.D.? (1M)

Ans: The full form of R.D. is recurring deposits.

50) What is the full form of F.D.? (1M)

Ans: The full form of F.D. is fixed deposit
