Q.A   Attempt Questions A-1 to A-5 based upon the following case study.

A house property is now vacant. It consists of only the ground floor at present. The Municipal Corporation has given permission to build a shop on the ground floor with offices on two upper floors after demolition of the house. The shop will have a frontage of 6m and a depth of 20m. Two floors of offices will be built over the shop with independent approaches providing approximately 102 sq.m. of carpet area per floor. The offices are each expected to be let at Rs. 1,000 per sq.m. per annum on carpet area and the shop at Rs. 2,00,000 per annum and the resultant investment should sell on the basis of a 7% return. Assume the following data:
i)   Commission on sales @ 2%
ii)   Legal fees associated with sales @ 3%
iii) a) Total actual construction cost = Rs. 6,72,000
      b) Professional fees on above @ 10%
      c) Demolition of old structure Lump Sum Rs. 10,000
      d) Finance charges = Rs. 49,584
iv) The Developer expects a profit of 20% on the total development cost.
v)   The Land Surplus is L
vi) The Net Land Price is X
vii) Given L = 1.5456 X

A-1.   Estimated gross sale proceeds per annum will be –

       a)   Rs. 4,00,000
       b)   Rs. 57,71,428
       c)   Rs. 4,04,000
       d)   Rs. 40,40,000

A-2.   Net sales proceed (S) is –

       a)   Rs. 40,40,000
       b)   Rs. 54,82,858
       c)   Rs. 56,56,000
       d)   Rs. 28,85,700

A-3.   Total development cost (D) is –

       a)   Rs. 6,72,000
       b)   Rs. 7,98,784
       c)   Rs. 8,00,000
       d)   Rs. 7,21,584

A-4.   The Developer's Profit (P) is estimated at –

       a)   Rs. 1,60,000
       b)   Rs. 1,34,400
       c)   Rs. 1,59,757
       d)   Rs. 14,43,168

A-5.   Considering the notations S, D, P, L and X as in questions 41 to 44, state which equation would be correct.

       a) $S = D - P + 1.5456\ X$
       b) $S = D + P + X$
       c) $S = D + P + L$
       d) $S = P + L + 1.5456\ X$

EXAMPLE 2

A house property is now vacant. It consists of only the ground floor at present. The Municipal Corporation has given permission to build a shop on the ground floor with offices on two upper floors after demolition of the house. The shop will have a frontage of 6m and a depth of 20m. Two floors of offices will be built over the shop with independent approaches providing approximately 102 sq.m. of carpet area per floor. The offices are each expected to be let at Rs. 1,000 per sq.m. per annum and the shop at Rs. 2,00,000 per annum and the resultant investment should sell on the basis of a 7% return. Calculate the value of the land in today's market. Assume any reasonable data.

Solution

1. *Estimated Sale Proceeds*

   (a) Two offices, 102 sq.m. each
       @ Rs. 1,000 per sq.m.   = Rs. 2,04,000 per annum
   (b) Shop @ Rs. 2,00,000   = Rs. 2,00,000 per annum
       Gross expected income from property   = Rs. 4,04,000 per annum

   YP in perpetuity at 7% $= \dfrac{100}{7}$

   Gross sale value $= \dfrac{100}{7} \times 4,04,000$ = Rs. 57,71,428

   Less outgoings

   (a) Commission on sales
       @ 2% of sales, i.e.,
       2% of Rs. 57,71,428   = Rs. 1,15,428

   (b) Legal fees associated with sales 3%,
       i.e., 3% of Rs. 57,71,428   = Rs. 1,73,142
                                           = Rs. 2,88,570
       Net sale proceeds   = Rs. 54,82,858 $= S$

2. *Development Costs*

   (a) Construction cost
       Shop, including foundation,
       of 120 sq.m. @ Rs. 2,000 per sq.m.   = Rs. 2,40,000
       Offices (gross area) 120 × 2 sq.m.
       @ Rs. 1,800 per sq.m.   = Rs. 4,32,000
                                           Rs. 6,72,000

   (b) Professional fees @ 10% of Rs. 6,72,000   = Rs. 67,200

   (c) Demolition cost of old structure Say   = Rs. 10,000

   (d) Cost of finance
       (i) On Rs. 77,200 i.e., (b) and
           (c) above for 1 year @ 12% = Rs. 9,264
       (ii) On Rs. 6,72,000, i.e., for (a)
           above for 0.5 year @ 12%   = Rs. 40,320 = Rs. 49,584
                                           = Rs. 7,98,784 $= D$

3. *Developer's Profit*
   20% of item 2, i.e., of Rs. 7,98,784   = Rs. 1,59,759 $= P$

4. *Land Surplus*

   Net land price   = Rs. x
   Add stamp duty @ 12%   = Rs. 0.12 x
   Add legal fees @ 3%   = Rs. 0.03 x
   Add cost of finance for 1 year
   @ 12% on Rs. $(x + 0.12\,x + 0.03\,x)$

i.e., 0.12 of Rs. 1.15 x = $\underline{\text{Rs. } 0.138\,x}$

                                                = Rs. $1.288\,x$

Add developer's profit@ 20% of $1.288\,x$ = $\underline{\text{Rs. } 0.2576\,x}$

                                                       = $\underline{\text{Rs. } 1.5456\,x} = L$

Using the equation $S = D + P + L$

                          $54,82,858 = 7,98,784 + 1,59,759 + 1.5456\,x$

                          $\therefore x = \text{Rs. } 29,27,222$

This represents the total land value.

                                                    Ans: Rs. 29,27,222

Q.B   Attempt Questions B-1 to B-5 based upon the following case study.

The owner of a plot of land which was purchased 10 years ago for Rs. 10,00,000 constructed a hotel five years ago, spending Rs. 20,00,000 for building, furnishing, decoration, etc. and runs the same himself. The hotel has 60 single rooms and 40 double rooms besides all the other facilities such as a good and clean dining room which serves liquor and provides other necessary comforts. The vacancy percentage on the rooms is approximately 25% calculated on an annual basis. The room rent averages Rs. 300 per day for a single room and Rs. 500 per day for double room depending upon the season. Maintenance costs for the hotel portion are estimated to be 20% of the gross rent collected. The Government has imposed a luxury tax on room rent at 40%.

The restaurant runs for 365 days of the year and it has been estimated that after accounting for goods, liquor and paying off the dining room employees, the profit after paying all taxes (except income tax), accounting for depreciation, repair, maintenance, etc. works out to Rs. 25 per every person who either stays at the hotel or enters the dining room. Additional people not staying at the hotel but entering the restaurant is estimated to be 125 daily.

There is an income from other sources such as advertisements, commission, etc. of Rs. 3,00,000 per annum to the business.

B-1.   The total income from hotel portion per annum is –

     a)   Rs. 62,41,500
     b)   Rs. 41,61,000
     c)   Rs. 28,500
     d)   Rs. 65,59,750

B-2.   Profit to restaurant per annum is –

     a)   Rs. 41,61,000
     b)   Rs. 20,98,750
     c)   Rs. 5,750
     d)   Rs. 3,00,000

B-3.   Total net profit to the owner is –

     a)   Rs. 65,59,750
     b)   Rs. 41,61,000
     c)   Rs. 20,98,750
     d)   Rs. 5,97,67,000

B-4. The profit that the owner makes is purely because of –

    a) the tangible assets
    b) the intangible assets
    c) both tangible and intangible assets
    d) only because of his personal goodwill

B-5. For income from other sources such as advertisement, commission, etc. assume tangible to intangible income in the ratio 40:60% and the yield at a percentage return of 13% and 15% respectively, what is the valuation from this portion of income?

    a) Rs. 9,23,077
    b) Rs. 12,00,000
    c) Rs. 21,23,077
    d) Rs. 0 (Zero). These are only non performing assets.

EXAMPLE 1

The owner of a plot of land which was purchased 10 years ago for Rs. 10,00,000 constructed a hotel five years ago, spending Rs. 20,00,000 for building, furnishing, decoration, etc. and runs the same himself. The hotel has 60 single rooms and 40 double rooms besides all the other facilities such as a good and clean dining room which serves liquor and provides other necessary comforts. The vacancy percentage on the rooms is approximately 25% calculated on an annual basis. The room rent averages Rs. 300 per day for a single room and Rs. 500 per day for double room depending upon the season. Maintenance costs for the hotel portion are estimated to be 20% of the gross rent collected. The Government has imposed a luxury tax on room rent at 40%.

The restaurant runs for 365 days of the year and it has been estimated that after accounting for goods, liquor and paying off the dining room employees, the profit after paying all taxes (except income tax), accounting for depreciation, repair, maintenance, etc. works out to Rs. 25 per every person who either stays at the hotel or enters the dining room. Additional people not staying at the hotel but entering the restaurant is estimated to be 125 daily.

There is an income from other sources such as advertisements, commission, etc. of Rs. 3,00,000 per annum to the business.

Calculate the value of the property.

Solution

Gross income from 60 single rooms per day = 60 × 300 × 0.75	=	Rs.	13,500
Gross income from 40 double rooms per day = 40 × 500 × 0.75	=	Rs.	15,000
Gross income from all rooms per day	=	Rs.	28,500
Gross income from all rooms per annum = 28,500 × 365	=	Rs.	1,04,02,500
Less luxury tax to be paid toGovernment @ 40%	= (–)	Rs.	41,61,500
		Rs.	62,41,500
Less maintenance cost on hotel portion@ 20% of gross rent	= (–)	Rs.	20,80,500
Income from hotel portion per annum	=	Rs.	41,61,000 (A)

Number of clients staying at the hotel daily:
  In single rooms = 0.075 × 60   = 45
  In double rooms = 0.75 × 40 × 2   = 60
                                       105
  Others entering the restaurant   = 125
  Total number of people using the restaurant daily = 230

Profit to restaurant daily = 230 × 25   = Rs. 5,750

Profit to restaurant per annum = 365 × 5,750	=	Rs. 20,98,750(B)
Income from other sources per annum	=	Rs. 3,00,000 (C)

The net profit is as follows:

(A)	From room rent	=	Rs. 41,61,000
(B)	From restaurant business	=	Rs. 20,98,750
(C)	From advertisement, commission, etc.	=	Rs. 3,00,000
	Total net profit	=	Rs. 65,59,750

On analyzing the components of the net profit we could allocate different ratios of tangible to intangible profit for each component or perhaps could even consider a ratio on the total net profit. This is left up to the judgement of the valuer. In this case the ratios have been fixed as follows for the reasons given.

(a) Room rent On a basic investment of Rs. 10,00,000 and Rs. 20,00,000 made 10 years and 5 years ago for rooms, a return of Rs. 41,62,000 seems high at current rates. Therefore, there must certainly be an element of goodwill for the business, i.e., the rooms are of a high standard and maintenance, service, etc. are of good quality. Therefore, tangible to intangible profit ratio is assumed at 66.67 to 33.33%.

(b) Restaurant business   This, too, seems to have a high degree of management efficiency but because food and drink items have to be purchased the intangible profit percentage is not likely to be as high as in the former case. The ratio assumed in this case will be assumed at 75 to 25%.

(c) Advertisement, commissions, etc.   These, normally, come in as incidentals to the main business and are mainly due to the goodwill of the hotel or restaurant. Perhaps some space or other facilities are given to advertisers but it is obvious that the bulk of this profit can be classified as profit from intangible assets. Therefore, the ratio in this case will be assumed at 40 to 60%.

Again, the capitalization rate for each of these elements of profit can be taken at different rates. Since the income from rooms is steady and more secure in nature, the rate of return can be taken at 10% and 12% for tangible and intangible assets respectively. The restaurant business is not so secure because it must depend on variable factors such as supplies of raw food and quality of food. Therefore, a return of 11% and 13% for tangible and intangible assets respectively may be taken. Advertisement and commissions are uncertain businesses; therefore, a return of 13% and 15% for tangible and intangible assets respectively is taken.

Return per annum

Component	Total net Profit (Rs.)	Type	Percent	Amount	Yield (Rs.)	Valuation (Rs.)
Room rent	41,61,000	Tangible	66.67	27,74,000	100/10	2,77,40,000
		Intangible	33.33	13,87,000	100/12	1,15,58,333
Restaurant	20,98,750	Tangible	75	15,74,063	100/11	1,43,09,664
		Intangible	25	5,24,687	100/13	40,36,054
Advertisements,	3,00,000	Tangible	40	1,20,000	100/13	9,23,077
Commission, etc.		Intangible	60	1,80,000	100/15	12,00,000
Total	65,59,750			65,59,750		5,97,67,128

Ans:~ Rs. 5,97,67,000

EXAMPLE 3

Estimate the reasonable standard rent for a newly constructed residential house constructed within a housing cooperative society where land was sold to various owners on ownership basis. The purchasers of these lands were required to construct their own house. The details are as follows:

Cost of land paid to the society	= Rs. 2,00,000
Cost of main structure of the house	= Rs. 6,50,000
Amount spent for amenities and other additional work	= Rs. 60,000
Estimated period of construction of the house	= 2 years
Amount paid to co-operative society for becoming a member (refundable deposit)	= Rs. 5,000
Service charges payable to society every month	= Rs. 1,500

Solution

1. Return on land @ 8%= Rs. $2,00,000 \times 0.08$ = Rs. 16,000

2. Cost of construction   = Rs. 6,50,000
   Additional amount for amenities and addition work   = Rs. 60,000
   Interest on the above amount for half the period of
   construction, i.e., one year @ 9% of Rs. 7,10,000   = Rs. 63,900
            Rs. 7,73,900
   9% return on total cost of construction of Rs. 7,73,900 = $7,73,900 \times 0.09$ = Rs. 69,651

3. Repairs and maintenance charges estimated @ 1% of total cost of
   construction since house is new, i.e. 1% of Rs. (9/10) × 7,73,900
   (9/10 of cost of construction is taken assuming 10% as scrap value)   = Rs. 6,965

4. Insurance @ 0.25% of Rs. (9/10) × 7,73,900   = Rs. 1,741

5. Sinking Fund @ 4% on Rs. (9/10) × 7,73,900
   (assuming life span of 80 years for the structure)

$$S = \frac{r}{(1+r)^n - 1} = \frac{0.04}{(1+0.04)^{80} - 1} = 0.001814$$

Sinking fund amount = $\frac{9}{10} \times 7,73,900 \times 0.001814$ = Rs. 1,264

         Rs. 95,621

This is the basic annual return that the owner expects
on the land and building per annum.

Add:

1. Municipal taxes to be paid by owner at an estimated 25% of the above rent = Rs. 23,905
2. Service charges to society @ Rs. 1,500 per month = Rs. 18,000
3. Interest on capital blocked with co-operative society @ 8% on Rs. 5,000 = Rs. 400

Reasonable standard rent   Rs.1,37,926 p.a.

or Rs. 11,493.83 p.m.

Ans:~ Rs. 11,500 p.m.