## AAFR (Solution) (S-15)

A-1Rs. $m$
(a) Disposal of equity interest in Star
The gain recognized in profit or loss would be as follows:
Fair value of consideration ..... 23
Fair value of residual interest ..... 13
Gain reported in comprehensive income ..... 1 ..... 37
less net assets and goodwill derecognized net assets goodwill (Rs. 39 - Rs. 32 million) ..... (36)
Loss on disposal ..... (6)
(b) Flux plc
Consolidated Statement of Financial PositionAs at 30 November 2013
Rs. $m$
Assets:
Non-current assets
Property, plant and equipment (W6) ..... 784.47
Investment property (W7) ..... 8
Goodwill ( $30+8$ ) ..... 38
Intangible assets ( $10-3$ ) ..... 7
Investment in Associate (Part a) ..... 13850.47
Current assets ..... 920
Total assets ..... 1,770.47
Equity and liabilities:
Share capital ..... 430
Retained earnings (W3) ..... 401.67
Other components of equity (W3) ..... 57.98
889.65
Non-controlling interest (W5) ..... 140.82
Total equity ..... 1,030.47
Non-current liabilities ..... 334
Current liabilities
Trade and other payables ..... 354
Provisions for liabilities (W4) ..... 52
Total current liabilities ..... 406
Total liabilities ..... 740
Total equity and liabilities ..... 1,770.47

Working 1 Electra goodwill and subsequent acquisition

|  | Rs. m | Rs. m |
| :--- | :--- | :--- |
| Fair value of consideration for $60 \%$ interest | 250 |  |
| Fair value of non-controlling interest | 150 | 400 |
| Fair value of identifiable net assets acquired |  | $(360)$ |
| Franchise right |  | $(10)$ |
| Goodwill | $\mathbf{3 0}$ |  |

Amortization of Franchise right
1 June 2012 to 30 November 2013 - Rs. 10 m divided by five years multiplied by 1.5 years is Rs. 3 million

$$
\begin{array}{ll}
\text { Dr Profit or loss } & \text { Rs. } 3 \text { million } \\
\text { Cr Franchise right } & \text { Rs. } 3 \text { million }
\end{array}
$$

Acquisition of further interest
The net assets of Electra have increased from Rs. 370 million to Rs. $(414+5+10-3)$ i.e. Rs. 426 million at 30 November 2013. They have increased by Rs. 56 million and therefore the NCI has increased by $40 \%$ of Rs. 56 million i.e. Rs. 22.4 million.

| Electra - NCI 1 June 2012 | 150 |
| :--- | :--- |
| Increase in net assets - NCI to 30 November 2013 | 22.4 |
| NCI - 30 November 2013 | $\mathbf{1 7 2 . 4}$ |
| Transfer to equity 20/40 | $(86.2)$ |
| Balance at 30 November 2013 | $\mathbf{8 6 . 2}$ |
| Fair value of consideration | 90 |
| Transfer from NCI | $(86.2)$ |
| Negative movement in equity | $\mathbf{3 . 8}$ |

Alternatively the acquisition could have been calculated as consideration of Rs. 90 m less $20 \%$ of net assets at second acquisition ( $20 \% \times$ (net assets per question $414+$ land fair value $5+$ franchise fair value 10 less franchise amortization 3)), resulting in a negative movement in equity of Rs. $4 \cdot 8 \mathrm{~m}$. The NCI would therefore be Rs. 85.2 million.

## Working 2 Fusion goodwill and disposal <br> Fair value of consideration <br> Fair value of net assets held <br> Increase in value of PPE <br> Goodwill

Sale of equity interest in Fusion
Fair value of consideration received80

Amount recognized as non-controlling interest (Net Assets per question at year end 232 - provision created $25+$ Fair value of PPE at acquisition 4 - depreciation of fair value adjustment $0.53(4 \times 16 / 12 \times 1 / 10)+$ goodwill 8 ) x $25 \%$
Positive movement in parent equity

## AAFR (Solution) (S-15)

Because a provisional fair value had been recognized for the non-current asset and the valuation was received within 12 months of the date of the acquisition, the fair value of the net assets at acquisition is adjusted thus affecting goodwill. Contingent liability - Fusion

IFRS 3 requires to measure at acquisition- date fair value regardless of probability, but retains a filter based on whether fair value can be measured reliably. This may result in the recognition of contingent liabilities that would not qualify for recognition under IAS 37 Provisions, Contingent Liabilities and Contingent Assets. The following consolidation adjustment would have been made:

| Dr Retained earnings | Rs. 30 million |
| :--- | :--- |
| Cr Contingent liability | Rs. 30 million |

IFRS 3 requires the acquirer to measure contingent liabilities subsequent to the date of acquisition at the higher of the amount that would be recognized in accordance with IAS 37, and the amount initially recognized, less any appropriate cumulative amortization. These requirements should be applied only for the period in which the item is considered to be a contingent liability, and usually will result in the contingent liability being carried at the value attributed to it in the initial business combination.

In this case, the contingent liability has subsequently met the requirements to be classified as a provision and has been measured in accordance with IAS 37. As a result the provisions for liabilities of Fusion will be reduced by Rs. 5 million as the contingent liability consolidation adjustment is no longer required and the provision is created as an entry in the financial statements of Fusion. No adjustment will be made to goodwill arising on acquisition.

$$
\begin{array}{ll}
\text { Dr Contingent Liability/Provisions } & \text { Rs. } 5 \text { million } \\
\text { Cr Profit or loss } & \text { Rs. } 5 \text { million }
\end{array}
$$

## Working 3 Retained earnings and other components of equity

| Flux: | Rs. m |
| :--- | :--- |
| Balance at 30 November 2013 | 410 |
| Associate profits Star (post acquisition profit $3 \times 100 \%$ ) | 3 |
| Loss on disposal of Star | $(6)$ |
| Impairment | $(28)$ |
| Investment property - gain | $(7)$ |
| Provision for legal claims <br> Post acquisition reserves: Electra (60\% x (year end retained <br> earnings 170 - acquisition profit 115 - franchise amortisation 3) | 31.2 |
| Fusion (100\% x (year end retained earnings 65 - acquisition <br> retained earnings 73 + conversion of contingent liability to provision <br> and reduction 5 - FV PPE depreciation 0.53)) |  |
|  | $(3.53)$ |
|  | $\mathbf{4 0 1 . 6 7}$ |

## AAFR (Solution) (S-15)

Other components of equity ..... Rs. m
Balance at 30 November 2013 ..... 22
Post acqn reserves - Electra ( $60 \%$ x (14-10)) ..... 2.4

- Fusion (17-9) ..... 8
- Star (post acquisition 1 - recycled on disposal 1) ..... (nil)
Revaluation surplus - foreign property ..... 4
Electra - negative movement in equity ..... (3.8)
Fusion - positive movement in equity ..... 25.38
57.98
Working 4 Provisions
Rs. m
Balance at 30 November 2013
Flux ..... 10
Electra ..... 6
Fusion ..... 420
Contingency ..... 30
Cancellation of contingency and introduction of provision ..... (5)
Provision for environmental claims ..... 752
Working 5 Non-controlling interest
Electra (W1)
Rs. $m$
Fusion (W2) ..... 54.62
Total ..... 140.82
Working 6 Property, plant and equipment

|  | Rs. m | Rs. m |
| :---: | :---: | :---: |
| Flux | 257 |  |
| Electra | 311 |  |
| Fusion $\underline{238}$ |  |  |
|  |  | 806 |
| Increase in value of land - Electra ( $360-230-115-10$ ) |  | 5 |
| Investment property - reclassified |  | (6) |
| Impairment - Flux (W9) |  | (28) |
| Increase in value of PPE - Fusion 4 |  |  |
| Less: increased depreciation ( $4 \times 16 / 12 \div 10$ ) |  | (0.53) |
| Revaluation surplus foreign property |  | 4 |
|  |  | 784.47 |

## Working 7

The land should be classified as an investment property. Although Flux has not decided what to do with the land, it is being held for capital appreciation. IAS 40 'Investment Property' states that land held for indeterminate future use is an investment property where the entity has not

## AAFR (Solution) (S-15)

decided that it will use the land as owner occupied or for short-term sale. The land will be measured at fair value as Flux has a policy of maximizing its return on capital employed. The fall in value of the investment property after the year-end will not affect its year-end valuation as the uncertainty relating to the regeneration occurred after the year-end.

Dr Investment property
Cr PPE
Dr Investment property
Cr Profit or loss

Rs. 6 million
Rs. 6 million
Rs. 2 million
Rs. 2 million

No depreciation will be charged

## Working 8 Provision for environmental claims

The environmental obligations of Rs. 1 million and Rs. 6 million (total Rs. 7 million) arise from past events but the costs of Rs. 4 million relating to the improvement of the manufacturing process relate to the company's future operations and should not be provided for.

| Dr Profit or loss | Rs. 7 million |
| :--- | :--- |
| Cr Provision | Rs. 7 million |

## Working 9 Restructuring

A provision for restructuring should not be recognized, as a constructive obligation does not exist. A constructive obligation arises when an entity both has a detailed formal plan and makes an announcement of the plan to those affected. The events to date do not provide sufficient detail that would permit recognition of a constructive obligation. Therefore no provision for reorganization should be made and the costs and benefits of the plan should not be taken into account when determining the impairment loss. Any impairment loss can be allocated to noncurrent assets, as this is the area in which the directors feel that loss has occurred.

Rs. $m$
Carrying value of Flux's net assets 862
Revaluation surplus 4
Provision for legal claims (7)
Investment property 2
Impairment of investment in $\operatorname{Star}(16-13)$
Value-in-use (pre-restructuring) 830
Impairment to PPE (28)
Working 10 Foreign property
Value at 30 November 2013 (12m SKs/1.5) 8
Value at acquisition 30 November 20124
Revaluation surplus to equity 4
Change in fair value ( $\mathbf{4 m}$ SKs at 1.5) 2.67
Exchange rate change 1.33
(8m SKs at 2 minus 12 million SKs at 1.5) 4

## AAFR (Solution) (S-15)

A-2
The first stage is to produce a statement of reserves so as to analyze the movement during theyear.
Statement of reserves ..... Rs. 000
Reserves brought forward ..... 770
Group share of profit for the year ..... 1,260
Dividend paid by ABC ..... (480)
Exchange gain (160,000 x 75\%) - 70,000 ..... 50
Reserves carried forward ..... 1,600
Statement of cash flows
For the year ended 31 December 2013
Cash flows from operating activities ..... Rs. 000
Profit before tax ..... 2,170
Depreciation charges ..... 220
Increase in inventory ( $650-480-30$ ) ..... (140)
Increase in receivables $(990-800-50)$ ..... (140)
Increase in payables ( $870-820-40$ ) ..... 10
Cash generated from operations ..... 2,120
Income taxes paid ..... (650)
Net cash from operating activities ..... $\mathbf{1 , 4 7 0}$
Cash flows from investing activities
Purchase of non-current assets (W2) ..... (530)
Cash flows from financing activities
Dividends paid to non-controlling interest (W1) ..... (150)
Dividend paid(480)
Exchange gain on cash(630)
Increase in cash ..... 340
Cash at 1 January 2013 ..... 160
Cash at 31 December 2013 ..... 500
Workings
W1 - Non-controlling interest
Balance b/d ..... 370
Total comprehensive income ( $260+(25 \% \times 160,000$ exchange gain $)$ ..... 300
Dividend paid (bal fig) ..... (150)
Balance c/d ..... 520
W2 - Non-current assets
Balance b/d ..... 1,700
Exchange gain ..... 90
Depreciation ..... (220)
Addition (bal fig) ..... 530
Balance c/d ..... $\mathbf{2 , 1 0 0}$

## AAFR (Solution) (S-15)

A-3
(a)

## Statement of profit or loss

For the year ended 31 December 2013

|  | Rs. 000 | Rs. 000 |
| :--- | :--- | :--- |
| Profit on disposal at fair value $(9,000-3,500)$ |  | 5,500 |
| Operating lease rentals | 480 |  |
| Less: release of deferred income | $\underline{(50)}$ | 430 |

## Statement of financial position <br> As at 31 December 2013

Deferred income (10,000-9,000)
Less: release of deferred income

Rs. 900,000 of this liability is non-current
(b) Under the allowed alternative treatment under IAS 23, borrowing costs would be capitalized as part of the cost of the asset.

- In order to capitalize the borrowing costs, a weighted-average cost of funds borrowed is computed:
$=($ Rs. 5 million $\times 7 \%)+($ Rs. 7 million $\times 8 \%)+($ Rs. 10 million $\times 9 \%) /($ Rs. 5 million + Rs. 7 million + Rs. 10 million)
$=($ Rs. 1.81 million $/$ Rs .22 million $) \times 100$
$=8.22 \%$ per annum
- Total borrowing cost $=$ Rs. 20 million $\times 8.22 \%$ per annum $\times 2$ years
$=$ Rs. 1.644 million $\times 2$ years
$=$ Rs. 3.288 million
- Borrowing costs to be capitalized = Interest expense - investment income (resulting from investment of idle funds)
= Rs.3,288,000 - Rs.500,000
= Rs.2,788,000
(c) Under IFRS 2, the incremental fair value is Rs.20, which is the difference in the fair value immediately before and after modification. The Rs. 20 will be recognized as an expense over the remainder of the vesting period in addition to the grant date.
(d) Because the entity would maximize the net amount that would be received for the asset in Market B (CU 22), that is the most advantageous market. Market B is the most advantageous market even though the fair value that would be recognized in that market (CU $23=\mathrm{CU} 25-$ CU 2) is lower than in Market $\mathrm{A}(\mathrm{CU} 24=\mathrm{CU} 26-\mathrm{CU} 2)$.
(e) The journal entries are

January 1, 20X6
No entry is required.
December 31, 20X6

AAFR (Solution) (S-15)
Dr Derivative asset 400,000
Cr Gain 400,000
December 31, 20X7
Dr Loss
50,000
Cr Derivative asset 50,000
A-4
Statement of Comprehensive Income

|  | Year 1 | Year 2 | Year 3 | Year 4 |
| :--- | :--- | :--- | :--- | :--- |
|  | Rs.'000 | Rs.'000 | Rs.'000 | Rs.'000 |
| Contract revenue | 15 | 1,250 | 8,266 | 7,469 |
| Contract costs | $(35)$ | $(1,250)$ | $(6,250)$ | $(5,100)$ |
| Gross (loss)/profit | $(20)$ | -- | 2,016 | 2,369 |

The percentage completion based on the proportion that costs incurred at each year-end bear to the estimated total costs are

| Note | $\begin{gathered} \text { Year } 1 \\ \text { Rs.'000 } \end{gathered}$ | Year 2 $\text { Rs.' } 000$ | $\begin{aligned} & \text { Year } 3 \\ & \text { Rs.'000 } \end{aligned}$ | $\begin{array}{r} \text { Y ear } 4 \\ \text { Rs.'000 } \end{array}$ | $\begin{array}{r} \text { Total } \\ \text { Rs.' } 000 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Estimated costs (a) |  | 1,500 | 5,500 | 5,000 | 12,000 |
| Precontract costs (b) | 15 |  |  |  | 15 |
| Materials at site (c) |  | (250) | 250 |  | -- |
| Idle plant depreciation (d) |  |  | (50) |  | (50) |
| Costs of variation (e) |  |  | 750 |  | 750 |
| Subcontractor advance (f) |  |  | (200) | 200 |  |
| Residual value of plant |  |  |  | (100) | (100) |
| Total costs | 15 | 1,250 | 6,250 | 5,100 | 12,615 |
| Percentage complete | 0.125 | 10.62 | 59.57 | 100.00 |  |
| Memorandum | 15/11,915 | 1,265/11 | 7,515/12 |  |  |

## Year 1:

Note (a): The customer has made it clear that, despite separate tenders being required for each part of the development, only one contractor would get the contract and the development was heavily interdependent.

Consequently, the contract should be treated as one, and not segmented.
Note (b): The second trip to the designers can be reasonably identified as being specifically incurred to secure the contract. It was probable that Malik Build Inc. would secure the contract, as it had been so notified, even though the contract was not secured until after the year 1 financial statements were authorized for issue. Accordingly Rs.15,000 can be included in the contract cost. The cost of the initial trip of Rs.20,000 was more exploratory in nature and thus cannot be included. As Malik Build Inc. can reasonably expect to recover the costs of the second trip, but as the contract was not sufficiently far advanced to reasonably forecast the outcome ( $0.125 \%$ complete), no profit is accrued. Revenue of Rs. 15,000 can be accrued in year 1 , and the total trip expenses are charged to the income statement.

The percentage complete is based on the contract cost of Rs. 12 million less the expected residual value of the plant specifically acquired for the contract.

## Year 2:

Note (c): At the end of year 2, materials were only delivered to site. Therefore, they are excluded from the percentage complete calculation. However, in the opinion of management, the contract still remained sufficiently incomplete to recognize profit, but the costs could be reasonably assumed to be recoverable and revenue is accrued equal to cost.

The percentage complete is based on the contract cost of Rs. 12 million less the expected residual value of the plant specifically acquired for the contract.

## Year 3:

Note (c): The materials delivered to site in year 2 were used in year 3 and are included in contract costs.

Note (d): Depreciation on idle plant for one month is deducted as the delay was not part of the construction activity.

Note (e): The costs of the variation are included as the costs were incurred. However, as the variation was not approved by the customer until after the year 3 financial statements were authorized for issue, the percentage complete is still applied to the initial contract price of Rs. $12,000,000$. In the opinion of management, the contract is sufficiently far advanced to deem the final outcome reasonably certain, so $59.57 \%$ (Rs. $7,148,000$ ) of the contract price is recognized as revenue. Therefore, Rs. $7,148,000$ less cumulative revenue to year 2 of Rs. $1,265,000$, or Rs. $5,883,000$, is recognized in year 3.

Note (f): The subcontractor advance is deducted from the cost, as it is an advance for work to be executed in year 4.

The percentage complete is based on the contract cost of Rs. 12 million less the expected residual value of the plant specifically acquired for the contract plus the cost of variation. This is applied to the initial contract value of Rs. 16 million, as the variation is not approved.

## Year 4:

In year 4 the contract is complete and the full contract revenue of Rs. 17 million (including the approved variation), less revenue recognized in earlier years, is taken to the income statement. Overall, the contract has revenue of Rs. 17 million and costs of Rs. 12.615 million, earning a profit of Rs.4,385,000 (Rs.2,016,000 + Rs.2,369,000). The loss in year 1 arises solely from the initial business trip, which is not a contract cost.

## STATEMENT OF FINANCIAL POSITION

|  | Year 1 | Year 2 <br> Cumulative progress billings |  | Rs.2,000,000 |
| :--- | :--- | :--- | :--- | :--- | Rs.7,000,000 | Rear 4 $16,000,000$ |
| :--- |
| Variation |

## AAFR (Solution) (S-15)

Disclosed as debtors (retention)
Contracts in progress

| Costs incurred | 15,000 | $1,265,000$ | $7,515,000$ | n/a |
| :--- | :--- | :--- | :--- | :--- |
| Recognized profits | -- | - | $2,016,000$ | n/a |

A-5

| Earnings: basic earnings per share |  |  |  |
| :--- | :--- | :--- | :--- |
| Profit after tax |  | 26,000 |  |
| Minority interest |  | $(1,500)$ |  |
| Preference dividend (1 year) |  | $(15)$ |  |
| Appropriation |  | $(5)$ |  |
| Share capital | Shares (m) | Weight |  |
|  | $\mathbf{2 4 , 4 8}$ |  |  |
| May 1, 20X0 (1000 - 48-18) | 934 | 1 | 934 |
| January 1, 20X1 | 48 | $4 / 12$ | 16 |
| February 28, 20X1 | 18 | $2 / 12$ | 3 |
|  |  |  | $\mathbf{9 5 3}$ |
| Bonus issue 1 for 4 |  |  | 238 |
|  |  | $\mathbf{1 , 1 9 1}$ |  |

Basic earnings per share $24,480 \div 1,191=$ Rs. 20.6
Earnings: diluted earnings per share
$\begin{array}{ll}\text { Profit per basic earnings per share } & 24,480\end{array}$
Interest $(18-\operatorname{tax} 6) \quad 12$
Preference shares $(15+5) \quad 20$
Employee remuneration (5\% of 32 above)
24,510.4
Ordinary shares (below)
1,370
Diluted earnings per share
Rs.17.89

## Dilutive/antidilutive computations

Net profit from continuing operations 35,000
Taxation
Non-controlling interest
Preference dividend, etc.
$(5 \% \times 300=15$ plus appropriation 5$)$
24,980

|  | Profit | Shares | $E P S$ |
| :--- | :--- | :--- | :--- |
| Net profit from continuing activities | 24,980 | 1,191 | 20.97 |
| Options $18 \mathrm{~m} \times[(5-3) \div 5] \times(10 \div 12)$ |  | 6 |  |
| $10 \mathrm{~m} \times[(5-2) \div 5] \times(2 \div 12)$ |  | 1 |  |
|  | $\mathbf{2 4 , 9 8 0}$ | $\mathbf{1 , 1 9 8}$ | $\mathbf{2 0 . 8 5}$ |
| Contingently issuable |  | 2 |  |
|  | $\mathbf{2 4 , 9 8 0}$ | $\mathbf{1 , 2 0 0}$ | $\mathbf{2 0 . 8 1}$ |
| Preference shares | 20 | 150 |  |


| $\mathbf{2 5 , 0 0 0}$ | $\mathbf{1 , 3 5 0}$ | $\mathbf{1 8 . 5 2}$ |
| :--- | :--- | :--- |
| 12 | 20 |  |
| $\mathbf{2 5 , 0 1 2}$ | $\mathbf{1 , 3 7 0}$ | $\mathbf{1 8 . 2 5}$ |

Therefore, all issues are dilutive and are ranked from the most to the least dilutive.

## Explanatory Notes

(a) Contingently issuable shares. The target profit of Rs.8,000 million and the total to date is only Rs. 1,200 million. Therefore, the number of shares to be included is the number issuable if the current year-end were the end of the contingency period. If this were the case, then the profits had not reached the target and only 2 million shares were issuable.
(b) Bonus issue. Even though the bonus issue was after the period end, the financial statements have not yet been published. This fact is taken into account in calculating basic and diluted earnings per share.
(c) Share options. The options exercised are included in basic earnings per share (and thus diluted earnings per share) from the date exercised. Up to the date exercised (February 28, 2013), they are included in diluted earnings per share only. In calculating the shares issued for no consideration, the average fair value is used, not the current value of the share.
(d) Preference shares. The most advantageous conversion rate is used, which is one ordinary share for every two preference shares.
(e) The amount of the profit receivable by employees will change when the profit adjustments regarding the preference shares and the convertible bonds are used in the calculation of diluted earnings per share.

| A-6 | As per FS | Adjustment | Tax base | Temporary <br> differences |
| :--- | :--- | :--- | :--- | :--- |
|  | Rs. $m$ | Rs. $m$ | Rs. $m$ | Rs. $m$ |
| Property, plant, and equipment | 7,000 |  | 1,400 | 5,600 |
| Goodwill | 3,000 |  |  | - |
| Intangible assets | 2,000 | $(400)$ | 0 | 1,600 |
| Financial assets | 6,000 | 500 | 7,000 | $(500)$ |
| Total noncurrent assets | $\mathbf{1 8 , 0 0 0}$ | $\mathbf{1 0 0}$ | $\mathbf{8 , 4 0 0}$ |  |
| Trade and other receivables | 7,000 |  | 7,500 | $(500)$ |
| Other receivables | 1,600 |  | 1,600 | - |
| Cash and cash equivalents | 700 |  | 700 | - |
| Total current assets | $\mathbf{9 , 3 0 0}$ |  | $\mathbf{9 , 8 0 0}$ |  |
| Total assets | $\mathbf{2 7 , 3 0 0}$ | $\mathbf{1 0 0}$ | $\mathbf{1 8 , 2 0 0}$ | $\mathbf{6 , 2 0 0}$ |
|  |  |  |  |  |
| Interest-bearing loans | 8,000 |  | 8,500 | 500 |
| Trade and other payables | 4,000 |  | 3,800 | $(200)$ |
| Employee benefits | 1,000 | 50 | 1,000 | $(50)$ |
| Current tax liability | 70 |  | 70 | - |
| Deferred tax liability | 600 |  | 600 | - |
| Total liabilities | $\mathbf{1 3 , 6 7 0}$ | $\mathbf{5 0}$ | $\mathbf{1 3 , 9 7 0}$ | $\mathbf{2 5 0}$ |
|  |  |  |  |  |
| Issued capital | 6,000 |  |  | - |

## AAFR (Solution) (S-15)

| Revaluation reserve | 1,500 | $(50)$ |  |
| :--- | :--- | :--- | :--- |
| Retained earnings | 6,130 | $(400)$ |  |
|  |  | 500 |  |
| Total equity | $\mathbf{1 3 , 6 3 0}$ | $\mathbf{5 0}$ | $\mathbf{6 , 4 5 0}$ |

## A-7

(a) Entity A paid a price of Rs.103,629.90 for the bond. This price is determined by discounting the interest and principal cash flows using the yield at which the bond was purchased (i.e., $8 \%$ ). More specifically, you can compute the price by

1. Computing the interest and principal cash flows and preparing a schedule showing the amounts and timing of the cash flows (column 1 below)
2. Determining the discount factors to use for a discount rate of $8 \%$ per year (column 2 below)
3. Multiplying each cash flow with its corresponding discount factor (column 3 below)

Since the stated coupon rate is $10 \%$ per year on a stated principal amount of Rs.100,000, the total annual interest payment is Rs.10,000 and the semiannual interest payment is half of that (i.e., Rs. $10,000 / 2=$ Rs.5,000).

On a bond-equivalent yield basis, the semiannual effective yield is simply half of the annual effective yield (i.e., $8 \% / 2=4 \%$ ). In other words, the semiannual effective yield is not compounded, but doubled, to arrive at the quoted annual yield. This convention is commonly used in the marketplace.

| Date $(1)$ | Cash flow (2) | Discount factor (3) | Present value |
| :--- | :--- | :--- | :--- |
| $12 / 31 / 2006$ | Rs. 5,000 | $1 /(1+0.04)=0.9615$ | Rs.4,807.69 |
| $7 / 31 / 2007$ | Rs.5,000 | $1 /(1+0.04) 2=0.9246$ | Rs. $4,622.78$ |
| $12 / 31 / 2007$ | Rs. 5,000 | $1 /(1+0.04) 3=0.8890$ | Rs.4,444.98 |
| $7 / 31 / 2008$ | (Rs. $100,000+$ Rs.5,000 | $1 /(1+0.04) 4=0.8548$ | Rs. $89,754.44$ |
| Total |  |  | Rs. $103,629.90$ |

Alternatively, you can use a discount factor for the principal payment and an annuity factor for the interest cash flows to compute the present value of the cash flows.
(b) Entity A purchased the bond at a premium. The amount of the premium is Rs.3,629.90.

When a bond is purchased at a price that is higher than its stated principal amount, it is said to be purchased at a premium. This occurs when the yield at which the bond is purchased is lower than the stated coupon yield, for instance, because market interest rates have declined since the bond was originally issued.
(c) January 1, 2005

Dr Available-for-sale financial asset 103,629.90
Cr Cash 103,629.90
(To record purchase of bond that is classified as available for sale)
This amount is computed in question (a).

## AAFR (Solution) (S-15)

(d)
(1) Cash interest receipts

| $1 / 8 / 2006$ | -- |
| :--- | :--- |
| $12 / 31 / 2006$ | $5,000.00$ |
| $7 / 31 / 2007$ | $5,000.00$ |
| $12 / 31 / 2007$ | $5,000.00$ |
| $7 / 31 / 2008$ | $5,000.00$ |

(2) Interest revenиe
--
4,145.20

12/31/2006
5,000.00
(3) Amortization
of premium
(4) Carrying amount
--
854.80
103,629.90
102,775.09
7/31/2007
7/31/2008
Cash interest received (column 1 ) is computed as the stated nominal amount multiplied by the stated coupon interest rate for half a year (i.e., $100,000 \times 10 \% \times 1 / 2$ ). Interest revenue reported in the income statement (column 2) is computed as the carrying amount in the previous period (column 4) times the effective interest rate (yield) at inception for half a year (i.e., previous carrying amount $\times 10 \% \times 1 / 2$ ). The amortization of the premium (column 3 ) is the difference between cash interest (column 1) and interest revenue (column 2). The carrying amount (column 4) equals the previous carrying amount (column 4) less the amortization of the premium during the period (column 3).
(e) July 31, 2007

$$
\begin{array}{rrr}
\text { Dr Interest receivable } & 5,000.00 & \\
\text { Cr Available-for-sale financial asset } & 889.00 \\
\text { Cr Interest revenue } & 4,111.0 \text { ( } &
\end{array}
$$

(a) An increase in the current market yield of a bond results in a decrease in its fair value (an unrealized holding loss). Since the bond is classified as available for sale, Entity A should recognize this change in fair value as a separate component of equity, but not in profit or loss.

The new fair value is computed as the present value of the remaining cash flows discounted using the new quoted annual yield divided by half to obtain the semiannual yield (i.e., $9 \% / 2=$ 4.5\%):

$$
\text { (Rs.100,000 + Rs.5,000) / } 1.045 \text { = Rs.100,478.47 }
$$

Since the carrying amount absent the change in interest rates would have been Rs.100,961.54, an unrealized holding loss of Rs. 483.07 has occurred. The journal entries are December 31, 2007

$$
\text { Dr Equity } 483.07
$$

Cr Available-for-sale financial asset 483.07
(To record the unrealized holding loss as a separate component of equity)

