

## FA Module 14 Pension fair value assets practice exam questions

covering defined benefit pension plans, employer contributions, current service costs, past service costs, discount rate for plan liabilities, benefit obligation, actuarial gain/loss, fair value of plan assets, actual return on plan assets, expected rate of return on plan assets, total service cost, pension benefits paid,

(The attached PDF file has better formatting.)

A defined benefit pension plan has the following entries for 20XX.

!	Employer contributions	72
!	Current service costs	49
!	Past service costs	52
!	Discount rate used to estimate plan liabilities	3%
!	Benefit obligation at beginning of year	5,134
!	Benefit obligation at end of year	4,957
!	Actuarial loss due to increase in plan obligation	52
!	Fair value of plan assets at beginning of year	4,698
!	Actual return on plan assets	295
!	Expected rate of return on plan assets	4%

Question 14.1: Total service cost

What is the total service cost?

Answer 14.1:  $49 + 52 = 101$

(total service cost = past service cost + current service cost)

Question 14.2: Interest cost

What is the interest cost on the benefit obligation?

Answer 14.2:  $3\% \times 5,134 = 154.02$

(interest cost on the benefit obligation = discount rate  $\times$  benefit obligation at the beginning of the year)

Question 14.3: Pension benefits paid

What are the pension benefits paid during the year?

Answer 14.3:  $5,134 - 4,957 + 52 + 154.02 + 101 = 484.02$

(pension benefits paid during the year = benefit obligation at the beginning of the year – benefit obligation at the end of the year + actuarial loss (or – actuarial gain) + interest expense on the benefit obligation + total service cost)

Question 14.4: Fair value of plan assets

What is the fair value of the plan assets at the end of the year?

Answer 14.4:  $4,698 + 72 + 295 - 484.02 = 4,580.98$

(fair value of plan assets at the end of the year = fair value of plan assets at the beginning of the year + employer contributions + actual return on plan assets – pension benefits paid)

Question 14.5: Periodic pension cost

What is the periodic pension cost for the year?

Answer 14.5:  $101 + 52 + 154.02 - 295 = 12.02$

(periodic pension cost = total service cost + actuarial loss (or – actuarial gain) + interest expense on the benefit obligation – actual return on plan assets)