HW - Chapter 9 - Dividend Policy - Q9

(i) According to Dividend Discount Model approach, the firm's expected or required return on equity is computed as follows:

D1 = 20

K_e = D1 / P_0 + g = 20 / 1460 + 7.5% = 8.87%

(ii) With rate of return on retained earnings (r) is 10% and retention ratio (b) is 60%, new growth rate will be as follows:

g = br = 0.10 × 0.60 = 0.06

Accordingly, the dividend will also get changed and to calculate this, first we shall calculate the previous retention ratio (b1) and then EPS assuming that rate of return on retained earnings (r) is the same.

With previous Growth Rate of 7.5% and r =10%, the retention ratio comes out to be:

0.075 = b1 × 0.10

Hence,

b1 = 0.75 and therefore and payout ratio was 0.25

With 0.25 payout ratio the EPS = Rs. 20 / 0.25 = Rs. 80

Now, the payout ratio is 60%, retention ratio is 40%. Hence, D1 = Rs. 80 × 0.40 = Rs. 32

Accordingly, new Ke will be

Ke = D1 / Po + g = 32 / 1460 + 0.06 = 8.19%