QUESTION NO. 71 The face value of the preference share is 10000 and the stated dividend rate is 10%. The shares are redeemable after 3 years period. Calculate the value of preference shares if the required rate of return is 12%.

Solution: Annual dividend = Rs.10000 x 10% = Rs.1000

Value As On Today = \( \frac{1000}{(1+.12)^1} + \frac{1000}{(1+.12)^2} + \frac{11000}{(1+.12)^3} = 9519.23 \)

WARRANTS

QUESTION NO. 75A The current market price of an equity share of a company is Rs. 120 and the exercise price of the warrant is Rs. 80. An investor is holding a warrant giving him the right to buy 2 ordinary shares from the company. Calculate the minimum theoretical value of the warrant.

Solution: Minimum Theoretical Value of Warrant = (120 – 80) x 2 = Rs. 80

QUESTION NO. 75B Santosh Ltd. has announced issue of warrants on 1:1 basis for its equity share holders. The current price of the stock Rs.10 and warrants are convertible at an exercise price of Rs.11.71 per share. Warrants are detachable and are trading at Rs.3. Calculate the minimum price of the warrant. Calculate the warrant premium. Now had the current price been Rs.16.375, what is the minimum price and warrant premium? (Consider warrants are tradable at Rs.9.75).

QUESTION NO. 75C A company has warrants outstanding, each entitling the holder to purchase one ordinary share for $1.40. Find the actual price of the warrants immediately before the date of expiry, if the share price:
(a) $2.60 (b) $2.00 (c) $1.50 (d) $1.10

Solution: The value of the warrants will be:
(a) $2.60 – $1.40 = $1.20p (b) $2.00 – $1.40 = $0.60p (c) $1.50 – $1.40 = $0.10p (d) zero

RIGHT SHARE

QUESTION NO. 76A (Exam Question) (RTP) Pragya Limited has issued 75,000 equity shares of Rs. 10 each. The current market price per share before right issue is Rs. 24. The company has a plan to make a rights issue of one new equity share at a price of Rs. 16 for every four share held. You are required to:
(i) Calculate the theoretical post-rights price per share;
(ii) Calculate the theoretical value of the right alone;
(iii) Discuss the effect of the rights issue on the wealth of a shareholder, who has 1,000 shares assuming he sells the entire rights;
(iv) State the effect, if the same shareholder does not take any action and ignores the issue.
(v) State the effect, if the same shareholder subscribe for the entire issue.
(vi) State the effect, if the same shareholder exercise 60% of the right and sell 40% of his right.

QUESTION NO. 76B (Exam Question) (8 Marks) The share of Galaxy Ltd. of a face Rs.10 is being quoted at Rs.24. The company has a plan to make a right issue of one equity share for every four shares currently held at a premium of 40% Of Face Value per share. You are required to:
(i) Determine the minimum price that can be expected of share after the issue.
(ii) Calculate the theoretical value of the rights alone.
(iii) Show the effect of the right issue on the wealth of a shareholder who has 1500 shares, if (a) he sells the entire rights, and (b) he ignores the rights.

**Solution:**

(i) Expected Minimum Price After Right Issue = 24 x 4 + 14 x 1 / 4 + 1 = Rs. 22

(ii) Post right price – Subscription price = Rs. 22 - Rs. 14 = Rs. 8

(iii)

(a) Value of 1500 shares before right issue

\[ 1500 \times \text{Rs.}24 = \text{Rs.} 36,000 \]

After Rights issue

\[ 1500 \times \text{Rs.}22 = \text{Rs.} 33,000 \]

Add Sale proceeds of right

\[ 375 \times \text{Rs.}8 = \text{Rs.} 3,000 \]

Net effect on wealth is Nil. Value of 1500 Shares

(b)

Before rights \text{Rs.} 36,000

After rights \text{Rs.} 33,000

Loss to Shareholder \text{Rs.} (3000)

**QUESTION NO.76C (Exam Question) (6 Marks) (RTP)** ABC Limited’s shares are currently selling at Rs. 13 per share. There are 10,00,000 shares outstanding. The firm is planning to raise Rs. 20 lakhs to finance a new project.

**Required:**

What is the ex-right price of shares and the value of a right, if

(i) The firm offers one right share for every two shares held.

(ii) The firm offers one right share for every four shares held.

(iii) How does the shareholders’ wealth change from (i) to (ii)?

**Solution:**

(i) Theoretical Post Right (Ex-Right) Per Share =

\[ \frac{13 \times 10,00,000 + 4 \times 5,00,000}{10,00,000 + 5,00,000} = \text{Rs.}10 \]

Theoretical Value of Right = Ex Right Price - Cost of Right Share = 10 - 4 = 6  \text{OR}

Theoretical Value of Right Per share = \[ \frac{6}{2} = 3 \]

**Working Note:** Number of right shares to be issued = \[ \frac{10,00,000}{2} = 5,00,000 \] shares.

Subscription Amount or Right Share Price = \[ \frac{20,00,000}{5,00,000} = \text{Rs.} 4 \]

(ii) **Theoretical Post Right ( Ex. Right ) Price Per Share :**
Theoretical Post Right (Ex. Right) Price Per Share

\[
\frac{13 \times 10,00,000 + 8 \times 2,50,000}{10,00,000 + 2,50,000} = \text{Rs.12}
\]

Theoretical Value of Right = Ex Right Price - Cost of Right Share = 12 - 8 = 4 OR

Theoretical Value of Right Per Share = \(\frac{4}{4}\) = Re.1 per share

**Working Notes**: No. of Right Shares to be issued = \(\frac{10,00,000}{4}\) = 2,50,000 shares

Subscription Amount of Right Share Price = \(\frac{20,00,000}{2,50,000}\) = Rs.8

(iii) How does the shareholders wealth change from (i) to (ii) : Since Right issue is constructed in such a way that shareholders proportionate share will remain unchanged, shareholders wealth does not change from (i) to (ii) i.e shareholder's wealth remain constant by issuing of Right Share.

(Assuming Shareholder holds 1000 shares)

**The firm offers one right share for every two shares held.**

**Before**

Value before Right \(1000 \times 13\) = 13000

**After**

Value including Right share \(1500 \times 10\) = 15000

Less : Subscription Price \(500 \times 4\) = 2000

Value after Right \(13,000\)

**The firm offers one right share for every four shares held.**

**Before**

Value before Right \(1000 \times 13\) = 13000

**After**

Value including Right share \(1250 \times 12\) = 15000

Less : Subscription Price \(250 \times 8\) = 2000

Value after Right \(13000\)

**SHARE BUYBACK**

**QUESTION NO.77 (Exam Question) (8 Marks)**

A Ltd. has a surplus cash of Rs. 90 lakhs and wants to use 30% of it for buyback shares. The Finance Manager of the Company estimates that its share price after re-purchase is likely to be 10% above the buyback price; if the buyback route is taken. The number of shares outstanding at present is 10 lakhs and the current EPS is Rs. 3. Market capitalisation of the company is Rs. 200 lakhs after buyback.

(a) The price at which the shares can be repurchased.

(b) The number of shares that can be re-purchased.
(c) The impact of share re-purchase on the EPS, assuming the net income is same.

**MPS AFTER RIGHT IN CASE OF SYNERGY (NPV)**

**QUESTION NO.78 (RTP)** Telbel Ltd. is considering undertaking a major expansion an immediate cash outlay of Rs. 150 crore. The Board of Director of company are expecting to generate an additional profit of Rs. 15.30 crore after a period of one year. Further, it is expected that this additional profit shall grow at the rate of 4% for indefinite period in future.

Presently, Telbel Ltd. is completely equity financed and has 50 crore shares of Rs.10 each. The current market price of each share is Rs. 22.60 (cum dividend) which includes dividend of Rs. 1.40 per share company paid last year. For the last few years dividend is increasing at a compound rate of 6% p.a. and it is expected to be continued in future also. This growth rate shall not be affected by expansion project in any way.

Board of Directors are considering following ways of financing the possible expansion:

1. A right issue on ratio of 1:5 at price of Rs.15 per share.
2. A public issue of shares.

In both cases the dividend shall become payable after one year.

You as a Financial Consultant required to:

(a) Determine whether it is worthwhile to undertake the project or not.
(b) Calculate ex-dividend market price of share if complete expansion is financed from the right issue.
(c) Calculate the number of new equity shares to be issued under public issue and at what price assuming that new shareholders do not suffer any loss after subscribing new shares and remain in indifferent position whether money is raised through right issue or through public issue.
(d) Calculate the total benefit from expansion to existing shareholders under each of two financing option.

**RIGHT SHARES-CALCULATION OF RETURN WHEN RIGHT IS SOLD**

**QUESTION NO.79 (Supplementary Study Material)** The stock of the A Ltd. is selling for £50 per common stock. The company then issues rights to subscribe to one new share at £40 for each five rights held.

(a) What is the theoretical value of a right?
(b) What is the theoretical value of one share of stock after right issue?
(c) What is the theoretical value of a right when the stock sells ex-rights at £50?
(d) John has £1,000 at the time A Ltd. goes ex-rights at £50 per common stock. He feels that the price of the stock will rise to £60 by the time the rights expire. Compute his return on his £1,000 if he

(1) buys A Ltd stock at £50, or
(2) buys the rights as the price computed in part c, assuming his price expectations are valid.