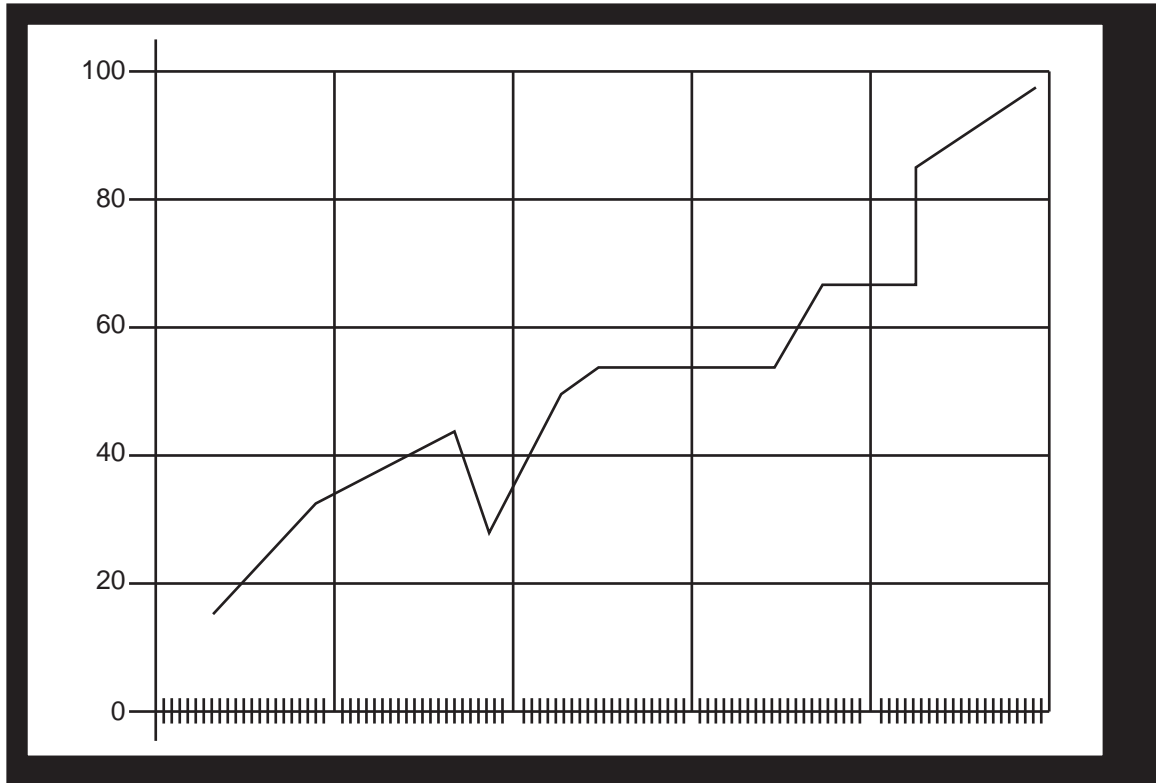


KSE-100 INDEX



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KSE-100 INDEX

KSE-100 INDEX

1. OBJECTIVE

The primary objective of the KSE100 index is to have a benchmark by which the stock price performance can be compared to over a period of time. In particular, the KSE 100 is designed to provide investors with a sense of how the Pakistan equity market is performing. Thus, the KSE100 is similar to other indicators that track various sectors of the Pakistan economic activity such as the gross national product, consumer price index, etc.

2. BRIEF ABOUT KSE-100 INDEX

The KSE-100 Index was introduced in November 1999 with base value of 1,000 points. The Index comprises of 100 companies selected on the basis of sector representation and highest market capitalisation, which captures over 80% of the total market capitalisation of the companies listed on the Exchange. Out of the following 35 Sectors, 34 companies are selected i.e. one company from each sector (excluding Open-End Mutual Fund Sector) on the basis of the largest market capitalisation and the remaining 66 companies are selected on the basis of largest market capitalisation in descending order. This is a total return index i.e. dividend, bonus and rights are adjusted.

LIST OF SECTORS

1	Open-end Mutual Funds	19	Oil & Gas Marketing Companies
2	Close-end Mutual Funds	20	Oil & Gas Exploration Companies
3	Modarabas	21	Engineering
4	Leasing Companies	22	Automobile Assembler
5	Investment Banks/Inv. Cos./Securities Cos.	23	Automobile Parts & Accessories
6	Commercial Banks	24	Cables & Electric Goods
7	Insurance	25	Transport
8	Textile Spinning	26	Technology & Communication
9	Textile Weaving	27	Fertilizer
10	Textile Composite	28	Pharmaceuticals
11	Woollen	29	Chemical
12	Synthetic & Rayon	30	Paper & Board
13	Jute	31	Vanaspati & Allied Industries
14	Sugar & Allied Industries	32	Leather & Tanneries
15	Cement	33	Food & Personal Care Products
16	Tobacco	34	Glass & Ceramics
17	Refinery	35	Miscellaneous
18	Power Generation & Distribution		



KSE-100 INDEX

3. STOCK SELECTION RULES

The selection criteria for stock inclusion in the recomposed KSE100 Index are:

Rule # 1 Largest market capitalisation in each of the **34** Karachi Stock Exchange sectors **excluding Open-end Mutual Fund Sector**;

Rule # 2 The remaining index places (in this case **66**) are taken up by the largest market capitalisation companies in descending order.

Rule # 3 Company which is on the Defaulters' Counter and/or its trading is suspended, declare Non-Tradable (i.e. NT) in preceeding 6 months from the date of recomposition shall not be considered in the recomposition of KSE-100 Index.

A number of the **34** top sector companies may also qualify for inclusion on the basis of their market capitalisation. In other words, companies may qualify solely under rule 1, solely under rule 2, or under both.

The fact that the sector rule is identified as Rule 1 does not imply that it is more important, only that the nature of the selection process is such that it is the screening that is done first.



KSE-100 INDEX

4. CALCULATION METHODOLOGY *

In the simplest form, the KSE100 index is a basket of price and the number of shares outstanding. The value of the basket is regularly compared to a starting point or a base period. In our case, the base period is 1st November, 1991. To make the computation simple, the total market value of the base period has been adjusted to 1000 points. Thus, the total market value of the base period has been assigned a value of 1000 points.

An example of how the KSE100 Index is calculated can be demonstrated by using a three-stock sample. **Table 1** illustrates the process. First, a starting point is selected and the initial value of the three-stock index set equal to 1000.

Taking stock A's share price of Rs. 20 and multiplying it by its total common shares outstanding of 50 million in the base period provides a market value of one billion Rupees. This calculation is repeated for stocks B and C with the resulting market values of three and six billion Rupees, respectively.

The three market values are added up, or aggregated, and set equal to 1000 to form the base period value. All future market values will be compared to base period market value in indexed form.

CALCULATING THE KSE-100

Step 1

The Base Period Day 1

TABLE 1

Stock	Share Price (in Pak Rs.)	Number of Shares	Market Value (in Rs.)
A.	20.00	50,000,000	1,000,000,000.00
B.	30.00	100,000,000	3,000,000,000.00
C.	40.00	150,000,000	6,000,000,000.00
Total Market Capitalisation			10,000,000,000.00

Note: Base Period Value/Base Divisor = Rs. 10,000,000,000.00 = 1000.00

* All figures taken are only hypothetical



KSE-100 INDEX

Step 2

Index Value as on Day 2

TABLE 2

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	22.00	50,000,000	1,100,000,000.00
B.	33.00	100,000,000	3,300,000,000.00
C.	44.00	150,000,000	6,600,000,000.00
Total Market Capitalisation			11,000,000,000.00

$$\text{Index} = \frac{11,000,000,000.00}{10,000,000,000.00} = 1.10 * 1000 = 1100$$

Thus, the formula for calculating the KSE-100 Index is :

$$\frac{\text{Sum of Shares Outstanding} \times \text{Current Price}}{\text{Base Period Value}} \times 1000$$

Or

$$\frac{\text{Market Capitalization}}{\text{Base Divisor}} \times 1000$$

The KSE100 Index calculation at any time involves the same multiplication of share price and shares outstanding for each of the KSE100 Index component stocks. The aggregate market value is divided by the base value and multiplied by 1000 to arrive at the current index number.



KSE-100 INDEX

5. RECOMPOSITION OF THE KSE-100 INDEX

Maintenance of the index over time will require an on-going semi-annual recomposition process, internal and external- buffer files of shares that exceed (shares outside the index) or fall below (shares inside the index) the above criteria will be maintained under the jurisdiction of the Board of Directors/Management of the Exchange.

Maintaining adequate representation of the under-lying stock market through all of its future development and changes is dependent upon the establishment of an appropriate recomposition process. Recomposition rules fall into two general categories: **Sector Rules** and **Market Capitalisation Rules**.

5.1 Sector Rules

Sector rules govern the selection (or deletion) of companies on the basis of being the top capitalisation stock in each of the **34** KSE sectors (excluding Open-end Mutual Fund sector). Two rules are recommended to undertake selection in this area-one, a time based rule and the other is a value-based rule. Application can be triggered by compliance with either rule.

5.1.1 Time-based rule:

A company (not in the index) which becomes the largest in its sector (by any amount of value) will enter the index after maintaining its position as largest in the sector for two consecutive recomposition periods.

5.1.2 Value-based rule:

A company (not in the index) which becomes the largest in its sector by a minimum of 10% greater in capitalisation value than the present largest in the sector (in the index) will enter the index after one recomposition period.



KSE-100 INDEX

5.2 Capitalisation Rule

Capitalisation rules govern the selection (or deletion) of companies on the basis of being among the largest capitalisation companies in the stock market. Only one rule applies here-time based rule.

5.2.1 Time-based rule:

A company (not in the index) may qualify for entry if it exceeds the market cap value of the last stock in the index selected on the basis of market cap for two recomposition periods. A qualifying company automatically pushes out the lowest cap selected stock in the index.

5.3 Rules for new issues

A newly listed company or a privatized company shall qualify to be included in the existing index (after one recomposition period) if the market capitalisation of the new or privatized company is at least 2% of the total market capitalization.



KSE-100 INDEX

AN EXAMPLE OF THE RECOMPOSITION OF THE KSE100

The base divisor adjustment process can easily be understood by an example mentioned below. It is important to understand that all divisor adjustment are made after the close of trading.

DIVISOR CHANGES

KSE-100 Index as on Day 2	=	1100
Index Market Capitalization on Day 2	=	11,000,000,000.00
Divisor as on Day 2	=	10,000,000,000.00

Revised Market Capitalization due to addition and
Deletion of companies on the basis of Sector Base
Rule and Market Capitalization Rule.- Say = Rs. 12,000,000,000.00

As mentioned earlier the Revised Market Capitalization are the market capitalization of those companies which would constitute the KSE-100 Index on the next day (Day 3). The Revised Market Capitalization calculated after the end of closing of trading session of Day 2 by using closing prices of the same day.

The key to making this adjustment, as with any divisor adjustment, is that the index value is temporarily 'frozen' at the close of trading, while the divisor is adjusted for the increase or decrease in market value of the numerator in the formula.

As the Formula for KSE-100 Index is:

$$\text{Index} = \frac{\text{Market Capitalization}}{\text{Divisor}} \times 1000$$

Therefore, in order to get the new divisor than formula is reframed as:

$$\begin{aligned} \text{New Divisor} &= \frac{\text{Revised Market Cap.}}{\text{Index (Day 2)}} \times 1000 \\ &= \frac{12,000,000,000}{1100} \times 1000 \\ &= 10,909,090,909 \end{aligned}$$

Note:

The formula for Re-composition of the KSE100 Index is same as mentioned in Table 2, except that the treatment of Base Divisor changes from Base Period Value to an arbitrary number, set such that there is no break in the index series. This will be adjusted for any capital changes in indexed stocks.



KSE-100 INDEX

6. REPLACEMENT OF STOCK IN THE INDEX

In Table 2 the ABC index is calculated for day 2. However, it is assumed that stock D will replace stock B effective at the opening of trading on day 3. Therefore, the divisor adjustment is made, as shown, after the close of trading on day 2., stock D's price, shares outstanding, and resulting market value are also as of the close of trading on day2.

By adding stock D, a stock twice the market value of B, the new base divisor increases substantially as the aggregate market value increases proportionately, while the index remains unchanged. Thus, the impact on the price index of stock D, isn't felt until 3rd day's trading begins.

KSE-100 Index as on Day 2	=	1100
KSE-100 Index Market Cap. of (A.B.&C) on Day 2	=	11,000,000,000
Divisor as on Day 2	=	10,000,000,000

Step 1. Replace stock B with stock D after the close of trading on Day 2. TABLE

3

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	22.00	50,000,000	1,100,000,000.00
D.	40.00	150,000,000	6,000,000,000.00
C.	44.00	150,000,000	6,600,000,000.00
Revised Market Capitalization of Index			13,700,000,000.00

New Divisor = Revised Market Capitalization of Index x 1000

Index

$$= \frac{13,700,000,000.00}{1100} \times 1000 = 12,454,545,455$$

The newly adjusted divisor is indeed larger, while the index values remain the same during this non-trading interval.



KSE-100 INDEX

Step 2

Application of new Divisor on Day 3.

TABLE 4

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A	22.50	50,000,000	1,125,000,000.00
B.	41.00	150,000,000	6,150,000,000.00
C.	44.50	150,000,000	6,675,000,000.00
Total			13,950,000,000.00

Market Capitalization

$$\text{Index as on 3rd Day} = \frac{\text{Market Capitalization}}{\text{Divisor}} \times 1000$$
$$= \frac{13,950,000,000.00}{12,454,545,455} \times 1000 = 1120$$



KSE-100 INDEX

7. DIVIDEND, BONUS AND RIGHT ADJUSTMENTS

7.1 Dividend Adjustment

If company A has declared 10% cash dividend and its Book Closure Date starts from day 4 then it will be adjusted after the close of Day 3.

KSE-100 Index as on Day 3	= 1120
KSE-100 Index Market Capitalisation on Day 3	= 13,950,000,000
Divisor as on Day 3	= 12,454,545,455

Step 1

Determine the ex-dividend price of the stock A to calculate the revised market capitalisation and a new divisor for the next day i.e. Day 4.

Stock A

Par value: Rs.10 **per share**

Market value on Day 3: Rs 22.50 **per share**

Cash Dividend : 10 %

- i) Cash dividend amount per share = Par Value x dividend% = Rs 10 x 10% = Re.1

- ii) Ex-dividend price = Market price – cash dividend amount
= 22.50 - 1
= 21.50



KSE-100 INDEX

Step 2

Share price of A is adjusted after the close of Day 3 to calculate the New Divisor for the next day (i.e. Day 4)

TABLE 5

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	21.50	50,000,000	1,075,000,000.00
B.	41.00	150,000,000	6,150,000,000.00
C.	44.50	150,000,000	6,675,000,000.00
Revised Market Capitalisation			13,900,000,000.00
$\text{New Divisor} = \frac{\text{Revised Market Cap.} \times 1000}{\text{Index as on Day 3}}$			
$\text{New Divisor} = \frac{13,900,000,000.00 \times 1000}{1,120} = 12,410,714,285$			

Step 3

Index Value as on Day 4.

TABLE 6

Stock	Share Price* (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	22.00*	50,000,000	1,100,000,000.00
B.	41.00	150,000,000	6,150,000,000.00
C.	44.50	150,000,000	6,675,000,000.00
Market Capitalisation			13,925,000,000.00
$\text{Index} = \frac{\text{Market Capitalisation} \times 1000}{\text{New Divisor}}$			
$\text{Index} = \frac{13,925,000,000 \times 1000}{12,410,714,285} = 1,122$			

* We have assumed that the prices of other stock remain constant.



KSE-100 INDEX

7.2 Bonus Adjustment

If company A has declared 10% Bonus shares its Book Closure Date starts from day 4 then it will be adjusted after the close of Day 3.

KSE-100 Index as on Day 3	= 1120
KSE-100 Index Market Capitalisation on Day 3	= 13,950,000,000
Divisor as on Day 3	= 12,454,545,455

Step 1

Determine the Ex-Bonus price of the stock A to calculate the revised market capitalisation and a new divisor for the next day i.e. Day 4.

Stock A

Market value on Day 3: Rs 22.50

Bonus : 10 %

For simplicity in working , we will calculate the Ex-bonus price on the basis of a lot of 100 shares.

- i. Total shares after the Bonus issue
 $100 \text{ shares} + (100 \text{ shares} \times 10 \% \text{ Bonus}) = 110 \text{ shares}$

- ii. Cost of a lot (100 shares)
 $100 \text{ shares} \times \text{market price of A}$
 $= 100 \times 22.50$
 $= \text{Rs. } 2250$

- iii. Ex- Bonus price per share = $2250/110$
 $= \text{Rs. } 20.45$



KSE-100 INDEX

Step 2

Calculation the total number of outstanding shares after the Bonus issue.

$$\begin{aligned} &\text{Total number of shares on Day 3} + (\text{Bonus \%} \times \text{total number of shares on Day 3}) \\ &= 50,000,000 + (10\% \times 50,000,000) \\ &= 55,000,000 \text{ shares} \end{aligned}$$

Step 3

Share price and the total number of outstanding shares of A is adjusted after the close of Day 3 to calculate the New Divisor for the next day (i.e. Day 4).

TABLE 7

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	20.45	55,000,000	1,124,750,000
B.	41.00	150,000,000	6,150,000,000
C.	44.50	150,000,000	6,675,000,000
Revised Market Capitalisation		13,949,750,000	
New Divisor = $\frac{\text{Revised Market Cap.} \times 1000}{\text{Index as on Day 3}}$			
New Divisor = $\frac{13,949,750,000}{1120} \times 1000 = 12,455,133,928$			

Step 4

Index Value as on Day 4.

TABLE 8

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	21.00	55,000,000	1,155,000,000
B.	41.00	150,000,000	6,150,000,000
C.	44.50	150,000,000	6,675,000,000
Market Capitalisation			13,980,000,000
Index = $\frac{\text{Market Capitalisation} \times 1000}{\text{New Divisor}}$			
Index = $\frac{13,980,000,000}{12,455,133,928} \times 1000 = 1122.42$			



KSE-100 INDEX

7.3 DIVIDEND & BONUS ADJUSTMENT (Simultaneously)

If company A has declared 10% Cash dividend and 10 % Bonus shares and its Book Closure Date starts from day 4 then it will be adjusted after the close of Day 3.

KSE-100 Index as on Day 3	= 1120
KSE-100 Index Market Capitalisation on Day 3	= 13,950,000,000
Divisor as on Day 3	= 12,454,545,455

Step 1

Calculate the Ex-Dividend and Ex-Bonus price of A.

1. The Ex-Dividend price of stock A shall be calculate in the same pattern as mentioned in the Step 1 of section 7.1 i.e. Rs. 21.50
2. Calculate the Ex- Bonus price of A:

For simplicity in working , we will calculate the Ex-bonus price on the basis of a lot of 100 shares.

- i. Total shares after the Bonus issue
 $100 \text{ shares} + (100 \text{ shares} \times 10 \% \text{ Bonus}) = 110 \text{ shares}$
- ii. Cost of a lot (100 shares)
 $100 \text{ shares} \times \text{Ex-Dividend price of A}$
 $= 100 \times 21.50$
 $= \text{Rs. } 2150$
- iii. Ex Dividend and Ex- Bonus price per share = $2150/110$
 $= \text{Rs. } 19.54$

Step 2

Calculate the total number of outstanding shares after the Bonus issue.

$$\begin{aligned} & \text{Total number of shares} + \text{Total number of shares} \times \text{Bonus}\% \\ &= 50,000,000 + (50,000,000 \times 10\% \text{ Bonus}) \\ &= 55,000,000 \text{ shares} \end{aligned}$$



KSE-100 INDEX

Step 3

Share price and the total number of shares of A is adjusted after the close of Day 3 to calculate the New Divisor for the next day (i.e. Day 4)

TABLE 9

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	19.54	55,000,000	1,074,700,000
B.	41.00	150,000,000	6,150,000,000
C.	44.50	150,000,000	6,675,000,000
Revised Market Capitalisation			13,897,700,000
New Divisor = $\frac{\text{Revised Market Cap.} \times 1000}{\text{Index as on Day 3}}$			
New Divisor = $\frac{13,897,700,000 \times 1000}{1120} = 12,410,446,428$			

Step 4

Index Value as on Day 4.

TABLE 10

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	20.00	55,000,000	1,100,000,000
B.	41.00	150,000,000	6,150,000,000
C.	44.50	150,000,000	6,675,000,000
Market Capitalisation			13,925,000,000
Index = $\frac{\text{Market Capitalisation} \times 1000}{\text{New Divisor}}$			
Index = $\frac{13,925,000,000 \times 1000}{12,410,446,428} = 1122.03$			



KSE-100 INDEX

7.4 RIGHT ISSUE ADJUSTMENT

The Right issues of the companies which constitute the KSE 100 Index are adjusted in two stages. At first stage the Ex-Right price is adjusted and at the second stage the capital (out standing shares) are adjusted. A brief detail about the right issues are mentioned below:

The company which declares Right shares have to close its books (share holders register) to determine entitlement within 45 days of its declaration.

At the date of book closure, the Ex-Right price is ascertained and if the company belongs to the KSE 100 Index then the Divisor is adjusted due to the Ex-Right price of the company.

When the company informs the Exchange that it has dispatched Letter of Rights Offer to the shareholders, the trading in the Letter of Rights Offer Un-paid are commenced. A separate block of capital, Un-Paid-Right, is formed equal to amount of right issue and the trading continues till next 45 days or till the last date of payment.

After the last date of payment the trading in Un-Paid-Right(Letter of Rights Offer) is discontinued and trading in Right Allotment Letter (RAL) is commenced which continues till the next 90 days.

By the end of 90 days or earlier when the company informs that shares certificates are ready for exchange with RAL, the trading in RAL is discontinued and the capital of the RAL is merged with the company. At this stage the Divisor of the KSE 100 Index is adjusted for the increase in the number of shares of the company.

Note:

The above mentioned text is simplified for the benefit of readers for details refer the Companies Ordinance 1984, Company (Issue of Capital) Rules 1996 and the Listing regulations of the Exchange.

A) Right issue without premium

If Company A has issued 10 % right shares and its Book Closure Date starts from day 4 then it will be adjusted after the close of Day 3.

KSE-100 Index as on Day 3	=	1120
KSE-100 Index Market Capitalisation on Day 3	=	13,950,000,000
Divisor as on Day 3	=	12,454,545,455



KSE-100 INDEX

FIRST STAGE

Step 1

Determine the Ex-Right price of the stock A to calculate the revised market capitalisation and a new divisor for the next day i.e. Day 4.

Stock A

Market value on Day 3: Rs 22.50

Right : 10 %

For simplicity in working, we will calculate the Ex-Right price on the basis of a lot of 100 shares.

- i. Total shares after the Right issue
 $100 \text{ shares} + (100 \text{ shares} \times 10 \% \text{ Right}) = 110 \text{ shares}$

- ii. Cost of a lot (100 shares)
 $100 \text{ shares} \times \text{market price of A} + 10 \text{ right shares} \times \text{par value}$
 $= 100 \times 22.50 + 10 \times 10$
 $= \text{Rs } 2350$

- iii. Ex- Right price per share = $2350/110$
 $= \text{Rs } 21.36$



KSE-100 INDEX

Step 2

Share price of A is adjusted after the close of Day 3 to calculate the New Divisor for the next day (i.e. Day 4)

TABLE 11

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	21.36	50,000,000	1,068,000,000
B.	41.00	150,000,000	6,150,000,000
C.	44.50	150,000,000	6,675,000,000
Revised Market Capitalisation			13,893,000,000
New Divisor = $\frac{\text{Revised Market Cap.} \times 1000}{\text{Index as on Day 3}}$			
New Divisor = $\frac{13,893,000,000}{1120} \times 1000 = 12,404,464,285$			

Step 4

Index Value as on Day 4.

TABLE 12

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	22.00	50,000,000	1,100,000,000
B.	41.00	150,000,000	6,150,000,000
C.	44.50	150,000,000	6,675,000,000
Market Capitalisation			13,925,000,000
Index = $\frac{\text{Market Capitalisation} \times 1000}{\text{New Divisor}}$			
Index = $\frac{13,925,000,000}{12,404,464,285} \times 1000 = 1122.57$			



KSE-100 INDEX

SECOND STAGE

If the trading in RAL of company A is discontinued, say, from Day 150th , then the capital of RAL is to be merged with the company and the Divisor shall be adjusted for the increase in number of outstanding shares.

Step 1

- i. Calculate the total number of outstanding shares of the RAL:

$$\begin{aligned} & \text{Total number of shares on Day 3} \times \text{Right issue \%} \\ & = 50,000,000 \times 10 \% \\ & = 5,000,000 \text{ shares} \end{aligned}$$

- ii. Total number of shares after the merger of RAL capital with the company's capital.

$$\begin{aligned} & \text{Total number of shares on Day 3} + \text{RAL Capital} \\ & = 50,000,000 + 5,000,000 \\ & = 55,000,000 \text{ shares} \end{aligned}$$

Step 2

Increase the number of outstanding shares of company A after the close of Day 149 to calculate the New Divisor for the next day (i.e. Day 150)

TABLE 13

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	21.00	55,000,000	1,155,000,000
B.	42.00	150,000,000	6,300,000,000
C.	45.00	150,000,000	6,750,000,000
Revised Market Capitalisation			14,205,000,000
New Divisor = Revised Market Cap. x 1000 Index as on Day 149			
New Divisor = $\frac{14,205,000,000}{1136} \times 1000 = 12,504,401,408$			



KSE-100 INDEX

Step 3

Index Value as on Day 150

TABLE 14

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	22.00	55,000,000	1,210,000,000
B.	41.50	150,000,000	6,225,000,000
C.	44.00	150,000,000	6,600,000,000
Market Capitalisation			14,035,000,000
Index = $\frac{\text{Market Capitalisation} \times 1000}{\text{New Divisor}}$			
Index = $\frac{14,035,000,000}{12,504,401,408} \times 1000 = 1122.40$			

B) Right issue with premium

If Company A has announced 10 % Right issue with a premium of Rs 10 per share.

Step 1

Determine the Ex-Right price of the stock A.

Stock A

Market value on Day 3: Rs 22.50

Right : 10 %

Premium : Rs 10 per right share

For simplicity in working , we will calculate the Ex-Right price on the basis of a lot of 100 shares.

- i. Total shares after the Right issue
 $100 \text{ shares} + (100 \text{ shares} \times 10 \% \text{ Right})$
 $= 110 \text{ shares}$
- ii. Cost of a lot (100 shares)
 $100 \text{ shares} \times \text{market price of A} + \{10 \text{ right shares} \times (\text{par value} + \text{premium})\}$
 $= 100 \times 22.50 + 10 \times (10 + 10)$
 $= \text{Rs } 2450$
- iii. Ex- Right price per share = $2450/110$
 $= \text{Rs } 22.27$

Note: The rest of the working would be same as mentioned in part A.



KSE-100 INDEX

7.5 DIVIDEND, BONUS & RIGHT ISSUE ADJUSTMENT (Simultaneously)

If Company A has announced;

Cash Dividend: 10 %
Bonus: 10%
Right: 10% at a Premium of Rs 10 per share

and its Book Closure Date starts from Day 4 then it will be adjusted after the close of Day 3.

KSE-100 Index as on Day 3 = 1120
KSE-100 Index Market Capitalisation on Day 3 = 13,950,000,000
Divisor as on Day 3 = 12,454,545,455

Step 1

Calculate the Ex-Dividend , Ex Bonus and Ex- Right price of the stock A:

1. The Ex – Dividend price shall be calculated in the same pattern as mentioned in Step 1 of section 7.1 i.e. @ Rs. 21.50
2. Calculate the Ex- Bonus and Ex – Right price:
For simplicity we will calculate its price on the basis of a lot of 100 shares.
 - i) Total shares after the Right issue and Bonus
 $100 \text{ shares} + (100 \text{ shares} \times 10 \% \text{ Right}) + (100 \text{ shares} \times 10\% \text{ Bonus})$
 $100 + 10 + 10$
 $= 120 \text{ shares}$
 - ii) Cost of a lot (100 shares)
 $100 \text{ shares} \times \text{market price of A} + \{10 \text{ right shares} \times (\text{par value} + \text{premium})\}$
 $= 100 \times 21.50 + 10 \times (10 + 10)$
 $= \text{Rs } 2350$
 - iii) Ex-Bonus and Ex- Right price per share = $2350/120$
 $= \text{Rs } 19.58$



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Step 2

Calculate the total number of outstanding shares after the Bonus issue.

$$\begin{aligned} & \text{Total number of shares} + \text{Total number of shares} \times \text{Bonus \%} \\ & = 50,000,000 + 50,000,000 \times 10\% \text{ Bonus} \\ & = 55,000,000 \text{ shares} \end{aligned}$$

Step 3

Share price and the total number of shares of A shall be adjusted after the close of Day 3 to calculate the New Divisor for the next day (i.e. Day 4)

TABLE 15

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	19.58	55,000,000	1,076,900,000
B.	41.00	150,000,000	6,150,000,000
C.	44.50	150,000,000	6,675,000,000
Revised Market Capitalisation			13,901,900,000
New Divisor = $\frac{\text{Revised Market Cap.}}{\text{Index as on Day 3}} \times 1000$			
New Divisor = $\frac{13,901,900,000}{1120} \times 1000 = 12,412,410,714$			

Step 4

Index Value as on Day 4.

TABLE 16

Stock	Share Price (in Rs.)	Number of Shares	Market Value (in Rs.)
A.	20.00	55,000,000	1,100,000,000
B.	41.00	150,000,000	6,150,000,000
C.	44.50	150,000,000	6,675,000,000
Market Capitalisation			13,925,000,000
Index = $\frac{\text{Market Capitalisation} \times 1000}{\text{New Divisor}}$			
Index = $\frac{13,925,000,000 \times 1000}{12,412,410,714} = 1121.86$			

The working for the Second Stage would be same as mentioned in Section 7.4(A).