



INDEX NUMBERS

1. Calculate the index numbers from the following data using:

(i) Laspeyre's method, (ii) Paasche's method, (iii) Fisher's method

Commodity	Price P_0	Quantity Q_0	Price P_1	Quantity Q_1
A	8	100	10	120
B	4	60	5	80
C	10	20	12	25
D	12	25	15	30
E	3	5	4	6

2. Calculate Laspeyre's, Paasche's and Fisher's index numbers from the following data:

Commodity	Price P_0	Quantity P_1	Price Q_0	Quantity Q_1
A	10	30	12	50
B	8	15	10	25
C	6	20	6	30
D	4	10	6	20

3. The following table contains information from the raw material purchase records of a small factory for the year 2011-2012 and 2016-2017:

Commodity	Price P_0	Total value Q_0	Price P_1	Total value Q_1
A	5	50	6	72
B	7	84	10	80
C	10	80	12	96
D	4	20	5	30
E	8	56	8	64

Calculate Fisher's ideal index number.

4. Calculate weighted average of price relative index number of prices for 2016 on the basis of 2011 from the following data:

commodity	Quantity in 2011	Price(in Rs.) 2011	Price (in Rs.) 2016
A	20	20	35
B	12	15	18
C	8	10	11
D	4	5	5
E	6	4	5

5. Construct the index of industrial production from the following data:

Industry	Output (in tonnes)		Weights
	2011-2012	2016-2017	
mining	120	180	25
Electrical products	200	290	45
Manufactured goods	150	220	30

6. Calculate the cost of living index number for 2016 taking 2012 as base year from the following data by family budget method.

Items	Quantity(in kg.)	Prices in 2012(in Rs./kg)	Prices in 2016(in Rs./kg)
A	15	10.00	12.00
B	20	16.50	20.00
C	8	6.00	7.50
D	12	15.00	16.00
E	10	8.00	11.50

7. Construct an index for the year 2016 taking 2011 as base by simple average of price relatives method

Items	P	Q	R	S
Price in 2011 (in Rs.)	30	50	70	90
Price in 2016 (in Rs.)	40	60	80	100