INDIAN SCHOOL AL WADI AL KABIR

Class: XI	Department: Commerce
Worksheet No: 1	Topic: INDEX NUMBER

1. The index used to measure changes in total money value is called:

   a. Price Index
   b. Quantity index
   c. Value Index
   d. None of the above

   A: c

2. The Paasche's index number is based on:
   a. Base year quantities
   b. Current year quantities
   c. Average of current and base years
   d. None of the above
   A: b

3. In notation P01, 1 stand for:
   a. Current year
   b. Reference year
   c. Both (a) and (b)
   d. None of these
   A: a

4. Consumers Price Index is also known as:
   a. Industrial Production Index
   b. Cost of Living Index
   c. Wholesale Price Index
   d. None of these
   A: b

5. Which of the following index number, indicates the change in the industrial production?
   a. Nifty
   b. GDP
   c. CPI
   d. IIP
   A: d

6. An index number is used to measure changes in:
   a. Quantity only
   b. Demand only
   c. A variable over time
   d. Price only
      A: c

7. The aggregate index formula using base period quantities is known as:
   a. Laspeyre's index
   b. Fisher's ideal index
   c. Bowley's index
   d. Paasche's index
      A: a

8. We use price index numbers:
   a. To measure and compare prices
   b. To compare prices
   c. To measure prices
   d. None of these
      A: a

9. Index number for the base period is always taken as:
   a. 100
   b. 50
   c. 1
   d. 200
      A: a

10. Price of top 30 shares of Bombay Stock exchange increased, which of these will increase?
    a. WPI
    b. CPI
    c. Inflation rate
    d. Sensex
       A: d

11. Whose formula is ideal for construction of Index Number?
    a. Pasche's formula
    b Laspeyre's formula
    c Fisher's formula
    d None of these
       A: c

12. Define the following:
    i. Consumer Price Index
    ii. Wholesale Price Index
    iii. Index numbers
    iv. Producer index numbers (Refer notes)

v. Sensex: It is a useful guide for investors in the stock market. If the Sensex is rising, investors are optimistic of the future performance of the economy.

13. What are the two types of price index numbers?
   i. Simple or Unweighted
   ii. Weighted index numbers

14, Mention two important uses of Index Numbers.
   a. They are indispensable in economic policy making.
   b. They measure and permit comparison of the prices of certain goods.

15. Mention two important limitations of Index Numbers.
   a. Index numbers are only estimates---they are true only on an average.
   b. Index numbers prepared for one purpose cannot be effectively used for other purposes
   c. Index numbers do not help in international comparison.
   d. It is difficult to collect retail prices so index numbers based on wholesale prices may be misleading.

16.. Discuss the main problems which are faced in the construction of Index Numbers.
   a. Purpose of the index number is to be absolutely clear, in order to avoid confusion.
   b. Selection of the items to be included is to be done very carefully and suitably, in order to get a meaningful picture of the change involved.
   c. selection of the source of data.

NUMERICALS:

1.

. Construct Cost of Living Index on the basis of the following data:

Items	Price	Weight
Wheat	241	10
Rice	150	4
Maida	200	2
Pulses	170	2
Oil	125	2

(200)

2.

In 2011 wheat was selling at an average price ₹ 120 per 20 kg, cloth ₹ 20 per metre, house rent ₹ 300 per house and other items ₹ 100 per unit. By 2019 cost of wheat rose by ₹ 180 per 20 kg, house rent by ₹ 450 and other items doubled in price. Using relative prices, index number for the year 2019 with 2011 as base year was 160. By how much the cloth rose in price during the period?

(A: Rs 8 per meter)

3.

Construct the price index from the following data, by taking 2011 as the base year.

Items	A	B	C	D	E
Price in 2011 (₹)	6	2	4	10	8
Price in 2019 (₹)	15	3	8	14	16

(A: 186.6)

4. From the set of statements given in Column 1 and Column II, choose the correct pair of Statements:

Column I	Column II
(i) Index numbers	(a) Measure absolute changes in the variable(s) over time
(ii) Laspeyre's method of index number	(b) Current year quantities are used as the weights of different items
(iii) Fisher's index number	(c) Satisfies only Time Reversal Test
(iv) Weighted index numbers	(d) A weighted average of the prices of different goods
(v) Consumer price index	(e) Applied to calculate the rate of inflation in a country

A: iv

5. Find out the price index of the year 2018, assuming 2016 as the base year of the following data by using simple average of price relative method:

Commodity:	Wheat	Sugar	Rice	Potato	Salt
P-2016 (Rs):	800	1100	400	500	300
P- 2018 (Rs):	900	1200	600	700	500

(A: 135.65)

Given the following data and taking 2011 as the base year, construct index of prices using:
(i) Laspeyre's Method, (ii) Paasche's Method, and (iii) Fisher's Method.

Year	Commodities							
	A		B		C		D	
	Price	Quantity	Price	Quantity	Price	Quantity	Price	Quantity
2011	24	8	9	3	16	5	10	3
2019	30	10	10	4	20	8	9	4

(A: Laspeyre's: 120.67, Paasche's method: 120.72, Fisher's method:120.69)

7. Calculate weighted aggregate price index from the following using: i. Laspeyre's method.
   ii. Paasche's method.

Commodity	Base Period		Current Period	
	Price	Quantity	Price	Quantity
A	10	6	15	8
B	25	10	40	20
C	30	15	45	12
D	15	20	30	15
E	20	8	25	6

A: (Laspeyre's : 161.06 ,   Paasche's : 160.31)

8. Calculate weighted average of price relative index from the following data:

Commodity	weight in (%)	Base Yr Price (Rs)	Current Yr Price (Rs)
A	40	2	4
B	30	5	6
C	20	4	5
D	10	2	3

(A: 156)

9. Calculate the simple Aggregative Price Index on the basis of the following data:

Commodity	Price (2018) (Rs)	Price (2019) (Rs)	
Rice	120	180	
Wheat	80	100	
Oil	300	400	
Pulses	130	180	
Sugar	150	200	**(A: 135.89)**