INDIAN SCHOOL AL WADI AL KABIR

Class: XI	Department: Commerce	
Worksheet: 1	Topic: Index Numbers	

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

2. 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

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

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

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

6. 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

7. 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

8. 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

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

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

11. Read the following statements; Choose one of the correct alternatives
   Assertion (A): Index number considers all factors. (5)
   Reasoning (R): Index number is based on samples.
   Options:
   a) 'A' is true but 'R' is false.
   b) 'A' is false but ' *R* ' is true.
   c) Both statements ' *A* ' and ' *R* ' are true and ' *R* ' is the correct explanation of *A*.
   d) Both statements ' *A* ' and ' *R* ' are true and ' *R* ' is not the correct explanation of *A*.

12. Read the following statements given below and choose the correct alternative.
   Statement 1- The choice of method for the construction of an index number entirely depends upon the object with which a particular index number is constructed
   Statement 2- Fisher's method is considered an ideal method to construct index numbers.
   (a) Both are correct
   (b) Both are incorrect
   (c) Statement 1 is correct and statement 2 is incorrect
   (d) Statement 1 is incorrect and statement 2 is correct

13. Read the following statements given below and choose the correct alternative.
   Assertion- Wholesale price index measures the relative changes in the price of commodities traded in the wholesale markets.
   Reason- Wholesale price index is used for forecasting demand and supply.
(a) Both assertion and reason are true. The reason is the correct explanation of the

assertion

(b) Both assertion and reason are not true. The reason is not the correct explanation of the assertion

(c) Assertion is true but the reason is not

(d) Reason is true but the assertion is not

14. Read the following statements given below and choose the correct alternative.

Statement 1- The consumer price index helps in the formulation of price policy.

Statement 2- The consumer price index does not measure the real value.

(a) Both are correct

(b) Both are incorrect

(c) Statement 1 is correct and statement 2 is incorrect

(d) Statement 1 is incorrect and statement 2 is correct

NUMERICAL EXAMPLE:

1. 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)

2. 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)

3. 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)

4. 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)

CASE STUDY:

Read the following case study paragraph carefully and answer the questions on the basis of the same:

Aarav, a 16-year-old student and a budding **fashion and tech blogger**. He regularly posts content on the latest clothing trends, smartphones, accessories, and budget-friendly products for teens. Over the past couple of years, Aarav noticed something strange — many of his followers were complaining that "affordable" fashion and gadgets were no longer affordable. Curious, Aarav decided to do a little research. Instead of just quoting a few product price hikes, his Economics teacher suggested he build something more solid — a **"Youth Lifestyle Index"**, an index number that tracks how the prices of teen lifestyle products have changed over time. So Aarav made a list of items commonly used by students:

- Sneakers and hoodies
- Budget smartphones
- Bluetooth earphones
- Basic skincare products
- School bags and accessories

He collected data from online stores and retail outlets, comparing prices from two years ago to the present. Using the concept of **index numbers**, he was able to show that while some items (like skincare) had minimal price change, others (like branded shoes and tech accessories) had seen a significant rise — making **teen fashion and tech lifestyle around 35–40% more expensive** on average.

1. How did Aarav use index numbers to make his argument more convincing?
2. Can such an index be helpful for budgeting or saving money?
3. What limitations might Aarav face while creating his index?