

# Chapter 18: Index Numbers

## Index Numbers Theory Questions

### Past Year Questions

PYQ May 18

- (1) Time reversal and factor reversal are:
- Quantity Index
  - Ideal Index
  - Price Index
  - Test of consistency

PYQ May 18

- (2) A series of numerical figures which show the relative position is called
- Index number
  - Relative number
  - Absolute number
  - None of these

PYQ May 18

- (3) The number of test of Adequacy is:
- 2
  - 5
  - 3
  - 4

PYQ May 18

- (4)  $P_{01}$  is the index for time
- 1 on 0
  - 0 on 1
  - 1 on 1
  - 0 on 0

PYQ May 18

- (5) The circular test is an extension of
- The time reversal test
  - The factor reversal test
  - The unit test
  - None of these

PYQ May 18

- (6) Price - relative is expressed in term of

$$\begin{aligned} \text{a. } P &= \frac{P_n}{P_o} & \text{b. } P &= \frac{P_o}{P_n} \\ \text{c. } P &= \frac{P_n}{P_o} \times 100 & \text{d. } P &= \frac{P_o}{P_n} \times 100 \end{aligned}$$

PYQ May 18

- (7) Circular test is satisfied by
- Laspeyre's Index Number
  - Paasche's Index Number
  - The simple geometric mean of price relatives and the weighted aggregative with fixed weights
  - None of these

PYQ May 18

- (8) The multiplicative time series model is (from Time Series Topic - deleted from syllabus)
- $y = T+S+C+I$
  - $y = TSCI$
  - $y = a+bx$
  - $y = a + bx + cx^2$

PYQ Nov. 18

- (9) Which of the following statement is true?
- Paasche's Index Number is based on the base year quantity
  - Fisher's Index Number is the Arithmetic Mean of Lasperye's Index Number and Paasche's Index Number
  - Arithmetic Mean is the most appropriate average for constructing the index number
  - Fisher's Index Number is an Ideal Index Number

PYQ Nov. 18

- (10) The simple average method is used to calculate (Time Series Topic - deleted from syllabus)
- Trend Variation
  - Cyclical Variation
  - Seasonal Variation
  - Irregular Variation

PYQ Nov. 18

- (11) The sale of Cold Drink would go up in summers and go down in the winters is an example of
- Trend Variation
  - Cyclical Variation
  - Seasonal Variation
  - Irregular Variation

PYQ June 19

- (12) Which is called an ideal index numbers
- Laspeyre's index number
  - Passche's index number
  - Fisher's index number
  - Marshall Edgeworth index number

PYQ June 19

- (13) In semi averages method, if the number of values is odd then we drop:
- (Time Series Topic - deleted from syllabus)
- First value
  - Last value
  - Middle value
  - Middle two value

PYQ June 19

- (14) Which is not satisfied by Fisher's ideal index number?
- Factor Reversal Test
  - Time Reversal Test
  - Circular Test
  - None of these

PYQ June 19

- (15) Trend in semi average is:  
(Time Series Topic – deleted from syllabus)
- Linear
  - Parabola
  - Exponential
  - None of these

PYQ June 19

- (16) The most commonly used mathematical method for finding secular trend is  
(Time Series Topic – deleted from syllabus)
- Moving average
  - Simple average
  - Exponential
  - None of these

PYQ Nov. 19

- (17) When sale of cold drink increases in summer and decreases in winters is an example of?
- Seasonal variations
  - Cyclic variations
  - Secular variations
  - None of these

PYQ Nov. 19

- (18) Seasonal variations take place within:  
(Time Series Topic – deleted from syllabus)
- One year
  - Two years
  - Half year
  - Five years

PYQ Nov. 19

- (19) Fisher's index number does not satisfy:
- Circular test
  - Time reversal test
  - Factor reversal test
  - Unit test

PYQ Nov. 19

- (20) In semi-average method if the no. of values is odd, we exclude:  
(Time Series Topic – deleted from syllabus)
- First value
  - Last value
  - Middle value
  - None of these

PYQ Nov. 20

- (21) Fisher's ideal index number does not satisfy
- Circular
  - Time reversal
  - Factor reversal
  - Unit

PYQ Nov. 20

- (22) Index numbers are expressed as
- Squares
  - Ratio
  - Percentages
  - Combinations

PYQ Jan. 21

- (23) The cost of living index is always
- Price index number
  - Quantity index number
  - Weighted index number
  - Value index number

PYQ Jan. 21

- (24) Fisher's index number does not satisfy
- Unit test
  - Circular test
  - Time reversal test
  - Factor reversal test

PYQ Jan. 21

- (25) When the prices for quantities consumed of all commodities are changing in the same ratio, then the index numbers due to Laspeyre's and Paasche's will be.
- Equal
  - Unequal
  - Reciprocal of Marshall Edge worth Index Number
  - Reciprocal of Fisher Index Number

PYQ Dec. 21

- (26) If  $P_{10}$  and  $P_{01}$  are index for 1 on 0 and 0 on 1 resp. then formula  $P_{01} \times P_{10} = 1$  is used for
- Unit test
  - Time Reversal Test
  - Factor Reversal Test
  - Circular Test

PYQ Dec. 21

- (27) The weighted averaged of price relatives of commodities, when the weights are equal to the value of commodities in the current year, yields \_\_\_\_\_ index number.
- Fisher's ideal
  - Laspeyre's
  - Paasche's
  - Marshall-Edgeworth

PYQ Dec. 21

- (28) Index numbers are not helpful in
- Framing economics policies
  - Revealing trend
  - Forecasting
  - Identifying errors

PYQ Dec. 21

- (29) The three index numbers, namely, Laspeyre, Paasche and Fisher do not satisfy \_\_\_\_\_ test.
- Time reversal
  - Factor reversal
  - Unit
  - Circular

PYQ June 22

- (30) Geometric mean method used in which index number to find it out
- Laspeyre's
  - Paasche's
  - Fishers index number
  - None of these

PYQ June 22

- (31) Which test is known for shift base index no.
- Factor test
  - Unit test
  - Circular test
  - Time reversal test

PYQ June 22

- (32) Laspeyre and Paasche do not satisfy -
- Unit test
  - Factor test
  - Time reversal test
  - Bowley's test

PYQ June 22

- (33) Laspeyre's index number is based on?
- Last year weight
  - Present year weight
  - Last year value
  - Present year value

PYQ June 22

- (34) Price relative is-
- $\frac{P_1}{P_0} \times 100$
  - $P$
  - $P_0$
  - $P_1 / P_0$

PYQ June 22

- (35) Which one of the following is not appropriate for calculation of index number?
- Unit test
  - Price relative test
  - Circular test
  - Time reversal test

PYQ Dec 22

- (36) Which of the following index measures the change from month to month in the cost of a representative basket of goods and services of the type which are bought by a typical household?
- Retail Price Index
  - Laspeyre's Index
  - Fisher's Index
  - Paasche's Index

PYQ Dec 22

- (37) Fisher's index number is called as ideal index number because it is satisfying
- Factor reversal test
  - Time reversal test
  - Both factor and time reversal test
  - Circular test

PYQ Dec 22

- (38) In price index, when a new commodity is required to be added, which of the following index is used?
- Shifted price index
  - Splicing price index
  - Deflating price index
  - Value price index

PYQ Jun 23

- (39) Which of the below index is computed by taking the average of base year and current year?
- Marshall-Edgeworth index
  - Paasche's Index
  - Laspeyre's Index
  - Fisher's Index

PYQ Jun 23

- (40) Weighted geometric mean of relative formula satisfies \_\_\_\_\_ test while Factor Reversal test is satisfied by \_\_\_\_\_.
- Time Reversal, Fisher's Ideal Index
  - Time Reversal, Laspeyre's Index
  - Factor Reversal, Paasche's Index
  - Factor Reversal, Fisher's Ideal Index

PYQ Dec 23

- (41) An index number constructed to measure the relative change in the price of an item or a group of item is called:
- Quantity index number
  - Price index number
  - Volume index number
  - Composite index number

PYQ Dec 23

- (42) Fisher's index does not satisfy following test
- Unit test
  - Time Reversal test
  - Circular test
  - Factor Reversal test

PYQ June 24

- (43) The average of base year and current years is used in \_\_\_\_\_ index number
- Laspeyre's
  - Paasche's
  - Fisher's ideal
  - Marshall-Edgeworth

PYQ June 24

- (44) What index number formula satisfies both the time reversal and factor reversal tests?
- Fisher's Ideal index
  - Laspeyres index
  - Paasche's index
  - Marshall-Edgeworth index

PYQ June 24

- (45) What of the following is not a test of adequacy in the context of index numbers?
- Unit test
  - Square test
  - Circular test
  - Factor reversal test

PYQ June 24

- (46) Which index number formula does not satisfy the time reversal test?
- Fisher's ideal index and Laspeyre's index
  - Laspeyres index and Paasche's index
  - Paasche's index and Fisher's ideal index
  - Laspeyres' index, Fisher's ideal index and Paasche's index

PYQ Sep 24

- (47) Time reversal test is satisfied by:
- Paasche's method but not Laspeyre's method
  - Laspeyre's method but not Fisher's method
  - Fisher's method
  - Laspeyre's method and Fisher's method

PYQ Sep 24

- (48) The value index is equal to:
- The total sum of the values of a given year plus the sum of the values of the base year

- The total sum of the values of a given year multiplied by the sum of the values of the base year
- The total sum of the values of a given year divided by the sum of the values of the base year
- The total sum of the values of a given year minus the sum of the values of the base year

PYQ Sep 24

- (49) Which one of the following test of adequacy is concerned with the measurement of price changes over a period of years, when it is desirable to shift the base?
- Time Reversal test
  - Unit test
  - Circular test
  - Factor reversal test

## Answer Key

1 d	2 a	3 d
4 a	5 a	6 c
7 c	8 b	9 d
10 c	11 c	12 c
13 c	14 c	15 a
16 b	17 a	18 a
19 a	20 c	21 a
22 c	23 c	24 b
25 a	26 b	27 c
28 d	29 d	30 c
31 c	32 c	33 a
34 a	35 b	36 a
37 c	38 a	39 a
40 a	41 b	42 c
43 d	44 a	45 b
46 b	47 c	48 c
49 c		

## Index Numbers Theory Questions

## Mock Test Paper Questions

MTP May 18

- (1) The \_\_\_\_\_ is satisfied when  $P_{ab} \times P_{bc} \times P_{ca} = 1$
- Time reversal test
  - Factor reversal test
  - Circular Test
  - none of these

MTP May 18

- (2) The number of tests of Adequacy
- |      |      |
|------|------|
| a. 2 | b. 3 |
| c. 4 | d. 5 |

MTP Nov 18

- (3) Fishers' Ideal Index number is
- The median of Laspyre's and Paasches Index numbers
  - The Arithmetic mean of Laspyres and Paasche's Index numbers
  - The geometric mean of Laspyres and Paasche's Index Numbers
  - None of these

MTP Nov 18

- (4) Fishers Ideal Formula satisfies

(1) Unit Test

(2) Circular Test

(3) Factor Reversal Test

(4) Time Reversal Test

- |            |               |
|------------|---------------|
| a. 1 and 2 | b. 1, 3 and 4 |
| c. 1 and 3 | d. 1, 2 and 3 |

MTP Nov 18

- (5) While construction of Index numbers which of the following has to be considered as point of reference in company various data describing individual behaviour

- Selection of weights
- Base Period
- Selection of Formulae
- Choice of variables

MTP Nov 18

- (6) Which of the options does not contain the proper use of Index numbers

- Helpful in policy determination
- Useful in Forecasting
- Equally useful in all condition for different purpose
- Helpful in comparison

MTP May 19

- (7) Weighted G.M. of relative formula satisfy \_\_\_ test

- Time Reversal Test
- Circular test
- Factor Reversal Test
- None of these

MTP May 19

- (8) Laspeyre's method and Paasche's method do not satisfy

- Unit Test
- Time Reversal Test
- Factor Reversal Test
- (b) and (c)

MTP May 19

- (9) Fisher's index number is based on

- The Arithmetic mean of Laspeyre's and Paasche's index numbers.
- The Median of Laspeyre's and Paasche's index numbers
- The Mode of Laspeyre's and Paasche's index numbers.
- The GM of Laspeyre's and Paasche's index numbers.

MTP May 19

- (10) Purchasing Power of Money is

- Reciprocal of price index number
- Equal to price index number.
- Unequal to price index number.
- None of these.

MTP May 19 Series II

- (11) Chain index is equal to

- $\frac{\text{Link relative of current year}}{\text{Chain index of the current year}} \times 100$
- $\frac{\text{Link relative of PY}}{100} \times \text{Chain index of CY}$
- $\frac{\text{Link relative of CY}}{100} \times \text{Chain index of PY}$
- $\frac{\text{Link relative of PY}}{100} \times \text{Chain index of PY}$

MTP May 19 Series II

- (12) The formula should be independent of the unit in which or for which price and quantities are quoted in

- Unit test
- Time Reversal Test
- Factor Reversal Test
- None of these

MTP May 19 Series II/ MTP Sep 24 II

(13) The formula for conversion to current value

- a. 
$$\text{Deflated value} = \frac{\text{Price Index of the current year}}{\text{previous value}}$$
- b. 
$$\text{Deflated value} = \frac{\text{current value}}{\text{Price Index of current year}}$$
- c. 
$$\text{Deflated value} = \frac{\text{Price Index of the previous year}}{\text{previous value}}$$
- d. 
$$\text{Deflated value} = \frac{\text{Price Index of the previous year}}{\text{previous value}}$$

MTP Nov 19

(14) Circular test is the extension of

- a. Unit test
- b. Factor reversal test
- c. Time reversal test
- d. None of these

MTP Nov 19

(15) Unit test is not satisfied by

- a. Fishers Index number
- b. Laspeyres Index number
- c. Simple Aggregative
- d. Bowleys Index number

MTP Nov 19

(16) The best average for construction of Index Number is

- a. AM
- b. GM
- c. HM
- d. None of these

MTP May 20

(17) Fisher's index number satisfies the \_\_\_\_\_ tests

- a. Time Reversal Test
- b. Factor Reversal Test
- c. Both (a) & (b)
- d. None of these

MTP May 20

(18) Fisher's ideal index number is

- a. The Median of Laspeyre's and Paasche's index numbers
- b. The Arithmetic Mean of Laspeyre's and Paasche's index numbers
- c. The Geometric Mean of Laspeyre's and Paasche's index numbers
- d. None of these

MTP Nov 20

(19) Purchasing Power of Money is

- a. Reciprocal of price index number
- b. Equal to price index number
- c. Unequal to price index number
- d. None of these

MTP Nov 20

(20) Factor reversal test is satisfied by

- a. Fisher's ideal index number
- b. Laspeyre's index number
- c. Paasche's index number
- d. All of the above

MTP Nov 20

(21) The number of tests adequacy is

- a. 2
- b. 5
- c. 3
- d. 4

MTP March 21

(22) Fishers Price Index number is equal is

- a. G. M of Kelly's Price Index number and Paasche's Price Index number
- b. G.M of Laspyres and Paaches Price Index number
- c. G.M of Bowley's price index number and Paasche's Index number.
- d. None of these

MTP Apr 21

(23) Purchasing power of money is

- a. Reciprocal of price index
- b. Equal to price index
- c. Unequal to price index
- d. None of these

MTP Nov 21

(24) Which is called an ideal index number

- a. Laspeyres Index number
- b. Pasches Index number
- c. Fishers Index number
- d. Marshall- Edgeworth Index number

MTP Nov 21

(25) The circular test is an extension of

- a. The time reversal test
- b. The factor reversal test
- c. The Unit test
- d. None of these

MTP Nov 21

- (26) Circular test is satisfied by
- Laspeyre's Index number
  - Paasche's index number
  - The simple geometric mean of price relatives and price relatives and weighted aggregate with fixed weights.
  - None of these

MTP Oct 21

- (27) \_\_\_\_\_ satisfies circular test
- G.M. of price relatives or the weighted aggregate with fixed weights
  - A.M. of price relatives or the weighted aggregate with fixed weights
  - H.M. of price relatives or the weighted aggregate with fixed weights
  - none

MTP Oct 21

- (28) Laspeyres formula does not satisfy
- Factor Reversal Test
  - Time Reversal Test
  - Circular Test
  - All the above

MTP March 22

- (29) Index numbers are not helpful in
- Framing Economic Policies
  - Revealing Trend
  - Forecasting
  - Identifying errors

MTP March 22

- (30) The weighted average of price relatives of commodities when the weight is equal to the value of commodities in base year yields \_\_\_\_\_ index number
- Fisher's Ideal
  - Laspyres
  - Paasches
  - Marshall-Edgeworth

MTP June 22

- (31) The number of tests of Adequacy is
- |      |      |
|------|------|
| a. 2 | b. 3 |
| c. 4 | d. 5 |

MTP June 22

- (32) Fisher's Ideal formula for calculating Index number satisfies the
- Unit Test
  - Factor Reversal Test
  - Time reversal Test

d. All of these

MTP June 22

- (33) Purchasing power of money is
- Reciprocal of Price index number
  - Equal to Price Index number
  - Unequal to Price Index number
  - None of these

MTP Dec 22 – Series I

(34) The Circular Test is known as:

- $P_{01} \times P_{12} \times P_{20} = 1$
- $P_{12} \times P_{01} \times P_{20} = 1$
- $P_{20} \times P_{12} \times P_{01} = 1$
- $P_{02} \times P_{21} \times P_{12} = 1$

MTP Dec 22 – Series I

(35) Laspeyres index number is a weighted aggregate method by taking \_\_\_\_\_ as weights.

- The quantity consumed in the base year
- The quantity consumed in the current year
- Value of items consumed in the base year
- Value of items consumed in the current year

MTP Dec 22 – Series II

(36) Which is not satisfied by Fisher's Ideal Index Number?

- Factor Reversal Test
- Time Reversal Test
- Circular Test
- None of these

MTP Dec 22 Series II

(37) The number of test adequacy is

- |      |      |
|------|------|
| a. 2 | b. 5 |
| c. 3 | d. 4 |

MTP Dec 22 Series II

(38) Laspyres method and Paasches method do not satisfy

- Unit Test
- Time Reversal Test
- Factor Reversal Test
- Both (b) & (c)

MTP Dec 22 Series II

(39) Fisher's index number is called as ideal index number because is in satisfies.

- Factor reversal test
- Time reversal test
- Both factor and time reversal test
- Circular test

## MTP June 2023 Series I

- (40) Which index measures the change from month to month in the cost of a representative basket of goods and services of the type bought by a typical household?
- Retail Price Index
  - Laspeyre's Index
  - Fisher's Index
  - Paasche's Index

## MTP June 2023 Series I

- (41) In price index, when a new commodity is required to be added, which of the following index is used?
- Shifted price index
  - Splicing price index
  - Deflating price index
  - Value price index

## MTP June 2023 Series II

- (42) Which test should be considered necessarily to verify the consistency while we select an appropriate index formula
- Circular test
  - Time reversal test
  - Factor reversal test
  - Both b and c

## MTP June 2023 Series II

- (43) Circular test is satisfied by which of the following index?
- Laspeyres index
  - Paasche's index
  - Fisher's index
  - Simple geometric mean of price relatives

## MTP June 2023 Series II

- (44) The purchasing power of money is \_\_\_\_\_
- Not equal to the price index number
  - Reciprocal of the price index number
  - Equal to the price index number
  - None of these

## MTP June 2023 Series II

- (45) Fisher's method of calculating the index number is based on the \_\_\_\_\_
- Geometric mean
  - Arithmetic mean
  - Harmonic mean
  - None of these

## MTP Dec 23 Series I/ MTP Sep I

- (46) Fisher index number is \_\_\_\_\_ of Laspyres and Paasches Index Number
- A.M
  - G.M
  - H.M
  - None of these

## MTP Dec 2023 Series I/ MTP Sep I

- (47) Circular test is satisfied by which of the below?
- Laspeyres index
  - Paasche's index
  - Fisher's index
  - Simple geometric mean of price relatives

## MTP Dec 2023 Series I

- (48) The cost of index number is always
- Price Index number
  - Quantity Index number
  - Weighted Index number
  - Value index number

## MTP Dec 2023 Series II

- (49) Fisher's ideal formula for calculating index number satisfies the \_\_\_\_\_
- Until Test
  - Factor Reversal Test
  - Both (a) and (b)
  - None of these

## MTP Dec 23 Series II

- (50) Shifted Price index =  $\frac{\text{Original Price Index}}{\text{Price Index of the year on which it has to be shifted}} \times 100$
- True
  - False
  - Partly True
  - Partly False

## MTP June 24 Series I

- (51) The number of test of Adequacy in Index numbers:
- 2
  - 3
  - 4
  - 5

## MTP June 24 Series I

- (52) Circular Test is satisfied by:
- Paasche's Index Number
  - The simple geometric mean of price relatives and the weighted aggregative with fixed weights
  - Laspeyre's Index Number
  - None of these

## MTP June 24 Series I

- (53) Consumer price index is commonly known as
- Chain Based index
  - Ideal index
  - Wholesale price index
  - Cost of living index.



## MTP June 24 Series II

- (54) \_\_\_\_\_ is an extension of time reversal test.
- Factor reversal test
  - Circular test
  - Unit test
  - None of these

## MTP June 24 Series II

- (55) Fisher's method for construction of Index Numbers uses \_\_\_\_\_
- Geometric Mean
  - Harmonic Mean
  - Median
  - HM

## MTP June 24 Series III

- (56) The \_\_\_\_\_ is satisfied when  $P_{ab} \times P_{bc} \times P_{ca} = 1$
- Time reversal test
  - Factor reversal test
  - Circular Test
  - none of these

## MTP June 24 Series III

- (57) The number of tests of Adequacy
- 2
  - 3
  - 4
  - 5

## MTP June 24 Series III

- (58) The tests of shifting bases are called \_\_\_\_\_
- Unit test
  - Time reversal test
  - Circular test
  - none of these

## MTP June 24 Series III

- (59) Purchasing power of money is stated as \_\_\_\_\_ price index?
- Equal to
  - Unequal to
  - Reciprocal of
  - None of these

## MTP June 24 Series III

- (60) When the product of price index and the quantity index is equal to the corresponding value index then the test that holds is
- Unit Test
  - Time Reversal Test
  - Factor Reversal Test
  - None of these

## Answer Key

- |      |      |      |
|------|------|------|
| 1 c  | 2 c  | 3 c  |
| 4 b  | 5 b  | 6 c  |
| 7 a  | 8 d  | 9 d  |
| 10 a | 11 c | 12 a |
| 13 b | 14 c | 15 c |

- |      |      |      |
|------|------|------|
| 16 b | 17 c | 18 c |
| 19 a | 20 a | 21 d |
| 22 b | 23 a | 24 c |
| 25 a | 26 c | 27 a |
| 28 d | 29 d | 30 b |
| 31 c | 32 d | 33 a |
| 34 a | 35 a | 36 c |
| 37 d | 38 d | 39 c |
| 40 a | 41 a | 42 d |
| 43 d | 44 b | 45 a |
| 46 b | 47 d | 48 c |
| 49 c | 50 a | 51 c |
| 52 b | 53 d | 54 b |
| 55 a | 56 c | 57 c |
| 58 c | 59 c | 60 c |

## Index Numbers Practical Questions

## Past Year Questions

## PYQ May 18

- (1) If  $\sum P_0 Q_0 = 1360$ ,  $\sum P_n Q_0 = 1900$ ,  $\sum P_0 Q_n = 1344$   
 $\sum P_n Q_n = 1880$  then Laspeyres's Index number is
- 0.71
  - 1.39
  - 1.75
  - None of these

## PYQ May 18

- (2) If the 1970 index with base 1965 is 200 and 1965 index with base 1960 is 150, what will be the index of 1970 on base 1960?
- 700
  - 300
  - 500
  - 600

## PYQ Nov. 18

- (3) If Laspeyres's Index Number is 250 and Paache's Index Number is 160, then Fisher's Index number is
- 40,000
  - 25/16
  - 200
  - 16/25

## PYQ Nov. 18

- (4) If  $\sum p_0 q_0 = 240$ ,  $\sum p_1 q_1 = 480$ ,  $\sum p_1 q_0 = 600$   
 A and  $\sum p_0 q_1 = 192$ , then Laspeyres's Index Number is
- 250
  - 300
  - 350
  - 200

## PYQ June 19

- (5) The prices and quantities of 3 commodities in base and current years are as follows:

$p_0$	$p_1$	$q_0$	$q_1$
12	14	10	20
10	8	20	30
8	10	30	10

The Laspeyre price index is

- a. 118.13                      b. 107.14  
c. 120.10                      d. None of these

## PYQ June 19

- (6) The cost of living index numbers in years 2015 and 2018 were 97.5 and 115 respectively. The salary of a worker in 2015 was ₹ 19500. How much additional salary was required for him in 2018 to maintain the same standard of living as in 2015?

- a. 3000                          b. 4000  
c. 3500                          d. 4500

## PYQ Nov. 19

- (7) The index number of prices at place in the year 2008 is 225 with 2004 as the base then there is:

- a. 125% increase              b. 225% increase  
c. 110% increase              d. 25% increase

## PYQ Nov. 20

- (8) In Laspeyre's index number is 110 and Fisher's ideal index number is 109. Then Paasche's index number is

- a. 118                              b. 110  
c. 109                              d. 108

## PYQ July 21

- (9) The weighted aggregative price index turnover for 2001 with 2000 as the base year using Fisher's Index Number is:

Commodity	Price (In ₹)		Quantity	
	2000	2001	2000	2001
A	10	12	20	22
B	8	8	16	18
C	5	6	10	11
D	4	4	7	8

- a. 112.26                          b. 112.20  
c. 112.32                          d. 126.01

## PYQ July 21

- (10) The weighted aggregative price index turnover for 2001 with 2000 as the base year using Paasche's Index Number is:

Commodity	Price (In ₹)		Quantities	
	2000	2001	2000	2001
A	10	12	20	22
B	8	8	16	18
C	5	6	10	11
D	4	4	7	8

- a. 112.32                          b. 112.38  
c. 112.26                          d. 112.20

## PYQ July 21

- (11) If in an additive model O refers to original data as 875, T refers to trend 700, S refers to seasonal variations -200, C refers to cyclical variations 75 then the value of I which refers to irregular variation is:

- a. -100                              b. -170  
c. -140                              d. -150

## PYQ July 21

- (12) The weighted aggregative price index turnover for 2001 with 2000 as the base year using Marshall Edgeworth Index Number is:

Commodity	Price In (₹)		Quantities	
	2000	2001	2000	2001
A	10	12	20	22
B	8	8	16	18
C	5	6	10	11
D	4	4	7	8

- a. 112.26                          b. 112.20  
c. 112.32                          d. 112.38

## PYQ July 21

- (13) The consumer price index goes up from 120 to 180 when salary goes up from 240 to 540, what is the increase in real terms?

- a. 80                                  b. 150  
c. 100                                  d. 240

## PYQ Dec. 21

- (14) From the following data base year:

Commodity	Base Year		Current Year	
	Price	Qty	Price	Qty
A	4	3	6	2
B	5	4	6	4
C	7	2	9	2
D	2	3	1	5

Fisher's Ideal Index is

- a. 117.30                          b. 115.43  
c. 118.35                          d. 116.48

## PYQ Jun 23

(15) Consider the data

Year	Base year		Current year	
	Price	Quantity	Price	Quantity
A	10	5	20	2
B	15	4	25	8
C	40	2	60	6
D	25	3	40	4

Laspeyre's index is

- a. 166.04                      b. 166.40  
c. 164.04                      d. 164.4

## PYQ Jun 23

(16) The index number of prices for a country at a given data is 250. In comparison to the base period price, the price of all commodities in the country has increased by \_\_\_\_\_ times.

- a. 1.25                          b. 1.5  
c. 2                                d. 2.5

## PYQ Jun 23

(17) If Fisher's index number is 160 and Paasche's index number is 140, then Laspeyre's index number is

- a. 147.77                      b. 182.85  
c. 183.35                      d. 146.25

## PYQ Dec 23

(18) The gross monthly pay of an employee was ₹ 15,000 in a year 2020. The consumer price index number in 2023 is 155 with 2020 as base year. If employee is to rightly compensate what dearness allowance is required to be paid?

- a. ₹ 8,000                      b. ₹ 8,250  
c. ₹ 8,500                      d. ₹ 8,750

## PYQ Dec 23

(19) If the Laspeyre's index is 110 and Paasche's index is 108, then what is the value of Fisher's index?

- a. 106.50                      b. 107.60  
c. 108.99                      d. 109.88

## PYQ Dec 23

(20) From the year 2013 to 2023, Consumer price index number is increased from 135 to 180. During this period, salary of the employees as per day commission recommendations was revised from ₹ 23,000 to ₹ 29,500. In real terms, an employee should get following additional amount (upto nearest whole number) to maintain his previous standard of living

- a. ₹ 1,168                      b. ₹ 666  
c. ₹ 909                        d. ₹ 6,500

## PYQ June 24

(21) If the prices of all commodities in the base year are twice the values of the respective commodities in the current year, then the Fisher's ideal index number is equal to:

- a. 200                            b. 50  
c. 400                            d. 25

## PYQ Sep 24

(22) The consumer price index for the year 2023 is 273 with 2010 as base year. The average monthly wages of industrial worker in year 2023 is ₹8,190. What is the real wage?

- a. ₹ 3,000                      b. ₹ 2,800  
c. ₹ 3,200                      d. ₹ 3,400

## PYQ Sep 24

(23) During a certain period the cost of living index goes up from 110 to 200 and the salary of a worker is also raised from ₹ 330 to ₹ 500, then in the real terms, the raise in salary is effectively-

- a. Gain by ₹75                      b. Gain by ₹50  
c. Loss by ₹90                      d. Loss by ₹50

## Answer Key

- |      |      |      |
|------|------|------|
| 1 b  | 2 b  | 3 c  |
| 4 a  | 5 b  | 6 c  |
| 7 a  | 8 d  | 9 a  |
| 10 d | 11 a | 12 a |
| 13 c | 14 a | 15 a |
| 16 b | 17 b | 18 b |
| 19 c | 20 a | 21 b |
| 22 a | 23 d |      |

## Index Numbers Practical Questions

## Mock Test Paper Questions

## MTP May 18

(1) The index number of prices at a place in 2008 is 355 with 2003 as base. This means

- a. There has been on the average a 255% increase in prices  
b. There has been on the average a 355% increase in price.  
c. There has been on the average a 250% increase in price.  
d. None of these.

MTP Nov 19

- (2) The Paasches and Fishers index numbers are 169 and 156 respectively, then Laspyre's Index number is
- a. 144                      b. 152  
c. 148                      d. 151.5

MTP May 20

- (3) The Paasches and Fishers index numbers are 169 and 156 respectively, then Laspyre's Index number is
- a. 144                      b. 152  
c. 148                      d. 151.5

MTP May 20

- (4) The whole sale price index number or agricultural commodities in a given region at a given date is 280. The percentage increase in prices of agricultural commodities over the base year is:
- a. 380                      b. 280  
c. 180                      d. 80

MTP Nov 20

- (5) During the certain period the C.L.I. goes up from 110 to 200 and the Salary of a worker is also raised from 330 to 500, then the change in real terms is
- ★ a. Loss by ₹ 50  
b. Loss by ₹ 75  
c. Loss by ₹ 90  
d. None of these

MTP Nov 20

- (6) In year 2005, the whole sale price index number is 286 with 1985 as base year, then how much the prices have increased in 2005 in comparison to 1985?
- a. 286%                      b. 386%  
c. 86%                      d. 186%

MTP March 21

- (7) The prices of commodity in the year 2015 and 2020 were 25 and 30 respectively taking 2020 as base year the price relative is
- a. 109.8                      b. 110.25  
c. 113.25                      d. 83.33

MTP March 21

- (8) For year 2015, price index was 267% with base year 2005. The percentage increase in price index over base year 2005 is:
- a. 267%                      b. 67%  
c. 167%                      d. None of these

MTP Apr 21

- (9) If an increase of 10% in prices. The rise in wages is 20% then the real wage has increased by
- ★ a. 20%                      b. 10%  
c. Less than 10%                      d. More than 20%

MTP Apr 21

- (10) The cost of living index numbers in years 2015 and 2021 were 97.5 and 115 respectively. The salary of a worker in 2015 was ₹ 19,500. How much additional salary is required for him in 2021 to maintain living standard of 2015?
- a. ₹ 3000                      b. ₹ 4000  
c. ₹ 3500                      d. ₹ 4500

MTP Nov 21/ MTP Sep 24 I

- (11) If Laspeyre's index number is 250 and Paasche's index number is 160, then Fishers Index is
- a. 200                      b. 120  
c. 150                      d. 170

MTP Nov 21

- (12) If the price of a commodity in a place have decreased by 30% over the based period places, then the index number of that place is
- a. 30                      b. 60  
c. 70                      d. 80

MTP Oct 21

- (13) From the following data for the 5 groups combined

Group	Weights	Index no
Food	35	425
cloth	15	235
Power & Fuel	20	215
Rent & Rates	8	115
miscellaneous	22	150

The general Index number is

- a. 270                      b. 269.2  
c. 268.5                      d. 272.5

MTP Oct 21

- (14) If  $\sum P_0 Q_0 = 1360$  ,  $\sum P_n Q_0 = 1900$  ,  $\sum P_n Q_n = 1880$  then the Laspeyre's Index is
- a. 71                      b. 139  
c. 175                      d. None of these

MTP Oct 21

- (15) The consumer price Index for April 1985 was 125. The food price index was 120 and other items index was 135. The percentage of food out of the total weight of the index is
- ★ a. 66.67                      b. 68.28  
c. 90.25                      d. None of these

MTP Oct 21

- (16) Net monthly salary of an employee was ₹ 3000 in 1980. The consumer price index number in 1985 is 250 with 1980 as base year. If he has to be rightly compensated then, 7<sup>th</sup> dearness allowances to be paid to the employee is:
- a. ₹4,800.00                      b. ₹4,700.00  
c. ₹4,500.0                         d. None of these.

MTP Mar 22

- (17) The index number for the year 2012 taking 2011 as the base year from the data given below by using simple average of price relative method is

Commodity	A	B	C	D	E
Price in 2011	115	108	95	85	90
Price in 2012	125	117	108	95	95

- a. 112                                      b. 117  
c. 120                                      d. 111

MTP March 22

- (18) Suppose a business executive was earning ₹ 2,050 in the base period. What should be his salary in the current period if his standard of living is to remain the same? Given  $\sum W = 25$  and  $\sum IW = 3544$ :
- a. ₹ 2096                                 b. ₹ 2906  
c. ₹ 2106                                 d. ₹ 2306

MTP March 22

- (19) Find the Paasche's Index number for prices from the following

Commodity	Base Year		Current Year	
	P	Q	P	Q
A	1	6	3	5
B	3	5	8	5
C	4	8	10	6

- a. 261.36                                 b. 265.48  
c. 274.32                                 d. 282

MTP June 22

- (20) The simple index number for the current year using simple aggregate method for the following data

Commodity base	Base year Price (P <sub>0</sub> )	Current Year Price (P <sub>1</sub> )
Wheat	80	100
Rice	100	150
Gram	120	250
Pulses	200	300

- a. 200                                      b. 150  
c. 240                                      d. 160

MTP June 22

- (21) The cost-of-living index number in year 2015 and 2018 were 97.5 and 115 respectively. The salary of CA Jitendra in 2015 was 195000. How much additional salary was required for him in 2018 to maintain the same standard of living as in 2015?
- a. 35,000  
b. 40,000  
c. 35,000  
d. 45,000

MTP Dec 22 - Series I

- (22) Consumer Price Index Number goes up from 100 to 200 and salary of a worker is also raised from 300 to 500, then Real Wage is
- ☆ a. 300                                      b. 250  
c. 600                                      d. 350

MTP Dec 22 - Series I

- (23) In the data group, Bowley's and Laspyre's index number is as follows. Bowley's index number is 150, Laspyre's index number is 180 then Paasche's index number is
- ☆ a. 120                                      b. 30  
c. 165                                      d. None of these

MTP Dec 22 - Series I

- (24) The prices and quantities of 3 commodities in base and current years are as follows:

P <sub>0</sub>	P <sub>1</sub>	Q <sub>0</sub>	Q <sub>1</sub>
12	14	10	20
10	8	20	30
8	10	30	10

The Laspyre's Price Index Number is:

- a. 118.13                                 b. 107.14  
c. 120.10                                 d. None of these

MTP Dec 22 Series II

- (25) The cost of living index number in year 2015 and 2018 were 97.5 and 115 respectively. The salary of a worker in 2015 was 19500. How much additional salary was required for him in 2018 to maintain the same standard of living as in 2015?
- a. 3000                                      b. 4000  
c. 3500                                      d. 4500

MTP June 2023 Series I

- (26) From the following data constructed the index number by Laspyre's method
- $$\sum P_1 Q_1 = 100, \sum P_0 Q_1 = 86,$$
- $$\sum P_0 Q_0 = 83, \sum P_1 Q_0 = 106$$

- a. 130.36                      b. 131.51  
c. 130.59                      d. 127.71

## MTP June 2023 Series I

- (27) If Fisher's index = 150 and Paasche's Index = 144, then Laspeyre's index is \_\_\_\_\_  
a. 147                              b. 156.25  
c. 104.17                        d. 138

## MTP June 2023 Series I

- (28) If Laspeyres index is A and Fisher's index is B. Find the value of Paasche's index  
a.  $B^2 / A$                         b.  $A^2 / B$   
c.  $A / 2B$                         d.  $2B / A$

## MTP Dec 2023 Series I

- (29)  $\sum P_0 Q_0 = 1360, \sum P_n Q_0 = 1900$   
 $\sum P_0 Q_n = 1344, \sum P_n Q_n = 1880$  then the Laspeyres Index number is  
a. 71                                b. 139.70  
c. 175                               d. None of these

## MTP Dec 2023 Series I

- (30) If Laspeyres Index number is 250 and Paasche's Index number is 160, then Fisher's Index number  
a. 200                                b. 400  
c. 250                                d. 196

## MTP Dec 2023 Series II

- (31) If  $\sum p_1 q_1 = 249, \sum p_0 q_0 = 150$  Paasche's Index Number = 150 and Drobish and Bowley's Index number = 145, then the Fisher's Ideal Index Number is  
a. 175                                b. 144.91  
c. 145.97                        d. None of these

## MTP Dec 2023 Series II

- (32) If the 2018 index with base 2015 is 250 and 2015 index with base 2012 is 150, the index 2018 on base 2012 will be:  
a. 800                                b. 375  
c. 600                                d. None of these

## MTP Dec 2023 Series II

- (33) In 2017 the average price of a commodity was 20% more than in 2016 but 20% less than in 2015; and more over it was 50% more than in 2018 to price relatives using 2016 as base (2016 price relative 100) Reduce the data is:  
a. 140, 100, 120, 80 for (2015-18)  
b. 150, 100, 120, 80 for (2015-18)  
c. 135, 100, 125, 87 for (2015-18)  
d. None of these

## MTP Dec 2023 Series II

- (34) From the following data

Group	A	B	C	D	E	F
Group Index	120	132	98	115	108	95
Weight	6	3	4	2	1	4

The general Index (I) is given by:

- a. 123.25                              b. 217.15  
c. 111.30                              d. None of these

## MTP Dec 2023 Series II

- (35) Consumer price index number goes up from 110 to 200 and the Salary of a worker is also raised from ₹ 33,000 to ₹ 50,000. Therefore, in real terms, to maintain his previous standard of living he should get an additional amount of:-  
a. ₹ 8500                              b. ₹ 10,000  
c. ₹ 9825                              d. None of these

## MTP June 24 Series I

- (36) In the data group Bowley's and Laspeyre's index number is as follows. Bowley's Index number = 150, Laspeyre's index number = 180 then Paasche's index number is:  
a. 120                                b. 30  
c. 165                                d. None of these

## MTP June 24 Series I

- (37) If Fisher's index = 150 and Paasche's Index = 144, then Laspeyre's index is \_\_\_\_\_  
a. 147                                b. 156.25  
c. 104.17                        d. 138

## MTP June 24 Series I

- (38) Monthly salary of an employee was ₹ 10,000 in the year 2010 and it was increased to ₹ 20,000 in the year 2023 while the consumer price index number is 240 in year 2023 with the base year 2010, what should be his salary in comparison of consumer price index in the year 2023?  
a. 2,000                                b. 16,000  
c. 24,000                              d. None of these

## MTP June 24 Series II

- (39) The consumer price index in 1990 increases by 80 per cent as compared to the base 1980. A person in 1980 getting ₹ 60,000 per annum should now get  
a. ₹ 1,08,000 per annum  
b. ₹ 82,000 per annum  
c. ₹ 64,000 per annum  
d. None of these

## MTP June 24 Series III

- (40) If  $\sum P_0Q_0 = 1360$ ,  $\sum P_nQ_0 = 1900$ ,  
 $\sum P_nQ_n = 1344$ ,  $\sum P_nQ_n = 1880$ , then the  
 Laspeyre's Index number is
- a. 71                      b. 139.70  
 c. 175                      d. 180

## MTP June 24 Series III

- (41) The index number of prices at a place in 2008 is  
 355 with 2003 as base. This means -
- a. There has been on the average a 255%  
 increase in prices.  
 b. There has been on the average a 355%  
 increase in price.  
 c. There has been on the average a 250%  
 increase in price.  
 d. None of these

## MTP Sep 24 Series I

- (42)  $\sum P_0Q_0 = 1360$ ,  $\sum P_nQ_0 = 2000$ , then the  
 Laspeyres Index number is:
- a. 71                      b. 147.50  
 c. 175                      d. None of these

## MTP Sep 24 Series I

- (43) If the prices of all commodities in the base year  
 are twice the values of the respective commodities  
 in the current year, then the Fisher's ideal index  
 number is equal to:
- a. 200                      b. 50  
 c. 400                      d. 25

## MTP Sep 24 Series II

- (44) If the index number of prices at a place in 2018 is  
 280 with 2008 as base year, then the prices have  
 increased on average by
- a. 280%                      b. 180%  
 c. 380%                      d. None of these

## MTP Sep 24 Series II

- (45) In 1980, the net monthly income of the employee  
 was ₹ 800/- p. m. The consumer price index  
 number was 160 in 1980. It rises to 200 in 1984.  
 If he has to be rightly compensated. The  
 additional D. A. to be paid to the employee is
- a. ₹ 175/-                      b. ₹ 185/-  
 c. ₹ 200/-                      d. ₹ 125/-

## MTP Sep 24 Series II

- (46) Consumer price index number goes up from 110  
 to 200 and the Salary of a worker is also raised  
 from ₹ 325 to ₹ 500. Therefore, in real terms, to  
 maintain his previous standard of living he  
 should get an additional amount of:

- a. ₹ 85                      b. ₹ 90.91  
 c. ₹ 98.25                      d. None of these

## MTP Sep 24 Series II

- (47) The prices of a commodity in the year 1975 and  
 ★ 1980 were 25 and 30 respectively taking 1980 as  
 base year the price relative is :
- a. 109.78                      b. 110.25  
 c. 113.25                      d. 83.33

## Answer Key

1 a	2 a	3 a
4 c	5 a	6 d
7 d	8 c	9 c
10 c	11 a	12 c
13 b	14 b	15 a
16 c	17 d	18 b
19 a	20 d	21 a
22 b	23 a	24 b
25 c	26 d	27 b
28 a	29 b	30 a
31 b	32 b	33 b
34 c	35 b	36 a
37 b	38 c	39 a
40 b	41 b	42 b
43 b	44 b	45 c
46 b	47 d	