

Statistics Department

Assignment – No. – 01

Statistics paper – STA - 202

- 1 Define Index Numbers. State their uses.
- 2 Explain Laspyre’s, Paasche’s and Fisher’s methods of constructing the price index numbers. Compare them.
- 3 Give reason for following
Paasche’s price Index Number has a downward bias.
- 4 Sometimes the value of price index number can be less than 100. Do you Agree?
- 5 Give reason, why Fixed base Index Numbers for several years are comparable.
- 6 Weighted average of price relatives with base year values as weights and Laspeyre’s price Index Number give identical results. State reason.
- 7 Explain, Why Fisher’s Index Number is called as ‘ an Ideal Index Number’?
- 8 Why Index Numbers are called as ‘ Economic Barometer’?
- 9 Geometric mean is the best average in the construction on Index Number. Do you agree?
- 10 What are Reversal test? Give names of such tests
- 11 Explain Time reversal and Factor Reversal Tests for index number.
- 12 Describe Laspeyer’s method of constructing index numbers for price.
- 13 Describe Paasche’s method of constructing price Index Number.
- 14 What are the drawbacks of Laspeyer’s and Paasche’s methods of index numbers.
- 15 From the following table, calculate price Index Numbers using 1) Paasche’s method and 2) Weighted Average of price relatives method using base year values as weights

	BaseYear price	Current year price	Base year Quantity	Current year Quantity
Commodity	p_0	p_1	q_0	q_1
A	3	5	4	3
B	2	3	7	6
C	5	9	2	1

- 16 Using the following data, verify that Marshall-Edworth’s I.N. is good approximation to Fisher’s I.N.

Commodity	Base Year (1980)		Current Year (1985)	
	Price	Quantity	Price	Quantity
A	2	74	3	82
B	5	125	4	140
C	7	40	6	33

- 17 State different errors arise in construction of index numbers.
- 18 Explain in detail, homogeneity error
- 20 Explain, Formula Error.
- 21 Explain the fixed base method and chain base method of constructing the index number.
- 22 What is cost of living Index Number? Explain the aggregate expenditure method and family budget method of constructing the CLIN
- 23 Test whether the following index satisfy time reversal test and factor reversal test or not?
- $$I_{01} = \frac{1}{2} \left[\frac{\sum p_1 \cdot q_0}{\sum p_0 \cdot q_0} + \frac{\sum p_1 \cdot q_1}{\sum p_0 \cdot q_1} \right]$$
- 23 Define the terms: Demography, Vital Statistics.
- 24 State uses of Vital Statistics
- 25 Define the terms: Crude death rate, Standardized death rate, Age specific Death Rate. Also, mention their uses.
- 26 State different methods of collecting Vital Statistics. State the method of registration.
- 27 Describe different measures of fertility stating their uses.