**Practical Assignment 03**

**Qn 01:** If the ratio between Laspeyres’ (L) and Paasche’s (P) index numbers is L/P = 28/27, find the missing figure in the following table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Base Year | | Current Year | |
| Commodity | Price () | Quantity () | Price () | Quantity () |
| A | 1 | 10 | 2 | 5 |
| B | 1 | 5 | x | 2 |

**Ans 01:**

**Calculation of Laspeyres’ and Paasche’s Index Numbers**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Commodity | Base Year | | Current Year | |  |  |  |  |
| Price () | Quantity () | Price () | Quantity () |
| A | 1 | 10 | 2 | 5 | 10 | 5 | 20 | 10 |
| B | 1 | 5 | x | 2 | 5 | 2 | 5x | 2x |
|  |  |  |  |  | 15 | 7 | 20+5x | 10+2x |

1. Laspeyres’ Index Number
2. Paasche’s Index Number
3. We are given

Hence, the missing figure is 4.

**Qn 02:** Given that Pasche’s index number is 150 and Dorbish and Bowley’s index number is 145, find out (i) Fisher’s ideal index number and (ii) Marshall Edgeworth index number.

**Ans 02:**

Also,

1. Fisher’s ideal index number is
2. Marshall Edgeworth index number is

**Qn 03:** Compute the price index by applying weighted average of price relatives

|  |  |  |  |
| --- | --- | --- | --- |
| **Commodities** |  |  |  |
| **Sugar** | 10 | 15 | 6 |
| **Rice** | 20 | 25 | 10 |
| **Milk** | 10 | 14 | 8 |

**Ans 03:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Commodities** |  |  |  |  | Rw | Ln(R)w |  |
| **Sugar** | 10 | 15 | 6 | 150 | 900 | 30.064 | 4 |
| **Rice** | 20 | 25 | 10 | 125 | 1250 | 48.283 | 8 |
| **Milk** | 10 | 14 | 8 | 140 | 1120 | 39.533 | 5.71432 |
| **Sum** |  |  | 24 |  | 3270 | 117.88 | 17.71432 |