Q.1. (a) Students will draw the demand & supply equilibrium diagram

b) P= Rs 5 Q= 40 units

(c). i. MR=0. ii) MR is +ve

(d) DMRTSLK

(e) Students will draw the Change in Quantity demanded and Change in Demand diagrammatically

2 a)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| YEARS | X | Y | XY | X2 |
| 2011 | -2.5 | 60 | -150 | 6.25 |
| 2012 | -1.5 | 72 | -108 | 2.25 |
| 2013 | -0.5 | 58 | -29 | 0.25 |
| 2014 | 0.5 | 90 | 45 | 0.25 |
| 2015 | 1.5 | 82 | 123 | 2.25 |
| 2016 | 2.5 | 100 | 250 | 6.25 |
| SUM | 0 | 462 | 131 | 17.5 |

a=77 b= 7.48

a) Y= a + bx

Y= 77 + 7.48X

b) Y= 77 + 7.48 ( 2025- 2013.5)= 163.02 in thousands

3 a) Students will explain consumer’s equilibrium with help of a graph

b) Students will explain the exceptions to law of demand.

4 a)

Power divider

Current TR=1000×10000=10,000,000

Ed= -1.5, Price increase = 10%, Sales declines=15%

New sales= 8500 Units

New Price= 1100

New TR= 1100×8500= 9350000. Thus, not better since TR declines.

CPE Antenna

Current TR=1600×20,000= 32,000,000

Ed= -2.5, Sales decline=25%, New sales= 15,000 Units.

New price=1760, New TR= 1760×15000= 26,400,000

Thus, not better since TR declines.

Cavity Filters

Current TR=80×10,00000= 80,000,000

Ed= -0.6, Sales decline= 6%,

New sales= 940000, New price= 88, & New TR= 88×940000= 82720000

Thus, it will be better since the TR increases.

(b).i M=160, Px=40 & Py=40. (2)

So X=4 & Y=4

Then, the budget equation

160=40x+40y. The students have to draw a budget line taking X=4 & Y=4.

ii. The consumer can not buy any bundle because these bundles are beyond the budget.