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**MID SEMESTER EXAMINATION-2020**

**SUBJECT- ENGINEERING ECONOMICS**

**EVALUATION SCHEME**

**4TH SEMESTER B.TECH.**

**[CODE -HS2002]**

Q.1.(a) Students will draw the demand & supply equilibrium diagramme. (1×5)

(b) Consumer.

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

(d) DMRTSLK

(e) Meaning of GDP & GNP.

Q.2.(a) (3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | Y | X | X2 | XY |
| 1 | 900 | -2 | 4 | -1800 |
| 2 | 700 | -1 | 1 | -700 |
| 3 | 600 | 0 | 0 | 0 |
| 4 | 500 | 1 | 1 | 500 |
| 5 | 300 | 2 | 4 | 600 |
|  | ∑Y=3000 | ∑x=0 | ∑ X2= 10 | ∑xy= -1400 |

a= 600 & b= -140

Y= a+bx & Y= 600-140X

Y this year= 600-(140×3), or Y=180.

(b) Price of X increases by 10 % (2)

Demand for Y will increase by 15%

New Demand of Y after the price change of X= 3,000 + (3000×0.15)= 3450 Units.

Q.3.(a) ROM (3)

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.

HARD DISK

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.

CPUs

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.

Q.4.(a) P=50000/ (1.1)1 +70,000/(1.1)4 +1,00,000/ (1.1)7 +80,000/(1.1)10 = 175424.76 (3)

(b) F= 4000(1.08)6 +5000(1.08)4 +6000(1.08)3 +7000((1.08)1 +8000= 36268.21 (2)

Q.5.(a.) (3)

i. R=(1+ 0.06/2)2 -1=0.0609

F= 20000(1.0609)6 = 28515.22

ii. R=(1+ 0.06/4)4 -1= 0.0613636

F= 20000(1.0613636)6 = 28590.064

(b) A=50,000-1000 (A/G, 8%. 11) (2)

A= 45760.497

F= 45760.497 (F/A, 8%, 11)

F= 761705.78