

**KIIT UNIVERSITY**

**RE-MID SEMESTER EXAMINATION-2019**

**NAME OF THE SUBJECT-ENGINEERING ECONOMICS**

**[CODE NO-HS 2002]**

**Answer any four questions including question No. 1 which is compulsory.**

**Full Marks:-20 Time: 1.30 hour**

**1. Why is demand for water inelastic? [1]**

**2. Show the geometric method of measuring Price Elasticity of Demand. [1]**

**3. Differenciate between inferior good and Giffen good. [1]**

4. What type of good would you expect to have a negative income elasticity of demand? [1]

***5.*** Ross, a certified financial analyst, would like to have $20,000 saved in his bank account at the end of 5 years. The bank offers a return of 10% compounded semi-annually. How much should Ross invest at the beginning so as to attain his goal? [1]

1. **i) Complete the Table [3]**

|  |  |  |  |
| --- | --- | --- | --- |
| * **OUTPUT** | * **AR** | **MR** | **TR** |
| * **1** |  | * **15** |  |
| * **2** |  |  | * **26** |
| * **3** | * **11** |  |  |
| * **4** |  | * **3** |  |

**ii) 4.8 units of a good are demanded at a price of 7 per unit. Price Elasticity of Demand is (-) 1. How many units will be demanded if the price rises to 8 per unit? Use expenditure approach of Price Elasticity of Demand to answer this question. [2]**

3 i) Compute the sales forecast for the year 2020. [3]

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Sales (Rs in lakhs) | 18 | 22 | 30 | 38 | 48 | 59 | 73 | 89 |

**ii)**Assume you save 4000 dollars per year and deposit it at the end of the year in an imaginary saving account (or some other investment) that gives you 6% interest rate (per year compounded annually), for 20 years. How much money will you have at the end of the 20th year? [2]

**4i) How will a fall in the price of tea affects an equilibrium price of coffee? Explain the chain of effects. [3]**

ii)If x= 20/p+1, Find price elasticity of demand with respect to price at point where p=3. [2]

5i) The following Table shows Thomas Utility from consuming two different food- salad and pastry. The price of a bowl of salad is Rs 3 and a price of a pastry is Rs 2.Fill up the Table. [3]

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| QUANTITY | TU | MU | MU/UNIT | TU | MU | MU/UNIT |
| 1 |  |  | 15 |  |  | 20 |
| 2 |  |  | 10 |  |  | 10 |
| 3 |  |  | 9 |  |  | 6 |
| 4 |  |  | 6 |  |  | 5 |
| 5 |  |  | 5 |  |  | 4 |
| 6 |  |  | 3.3 |  |  | 1 |

**ii) If Thomas has Rs 10 to spend on salad and pastry, how many units of each good should he purchase? [2]**

**Thomas pocket money has increased from Rs 10 to Rs 18. If he spends only on these two goods, what is optimal consumption bundle?**