Name: _____ Registration # _____

Department of Computer Systems Engineering
University of Engineering & Technology
Peshawar, Pakistan

Subject: **Engineering Economics**	Exam: **Mid Term Fall 22**
Marks: 20	Time Allowed: **2 Hours**

DIRECTIONS:

1. *Be clear and precise in your answers. Avoid unnecessary details.*
2. *You are expected to have brought a calculator and necessary stationery, anything else found in possession would be tantamount to cheating. No sharing of calculators is allowed.*
3. *Pages are numbers from 1- 2. Make sure you have both of them.*

Question 01 [Marks 5] **[CLO-1]**

Fill with the proper Economic Environment Terminologies:

i- The type of costs that are not paid with cash but occur in documents only are _____

ii- The Life-Cycle costs are least in _____ phase.

iii- The demand for _____ is highly elastic.

iv- Elasticity is the % ratio of _____

v- The two types of Economics are _____

vi- For developing rational alternatives, we must use a consistent _____

vii- The four key factors in selecting good engineering economic decisions are:

_____

viii- The type of cost that is made due to some past decision is _____

ix- The initial breakeven point can be attained earlier by increasing the _____

x- The indirect costs are also known as _____

Question 02 [Marks 10] **[CLO-2]**

Mond-Licht Studios estimates that it increases its item's sales volume by decreasing the selling price. The revenue function is given by $aD\text{-}bD^2$ where D represents the units of demand of items per month. The fixed costs are estimated to be *$1,145* per month and the total costs for 70% of demands are *$1,647.5*. Net sales at 70% utilization are *$2,556*. The demand relationship with the price is given by $D = 231.0965 - 1.025p$, and the price per unit item is *$50*.

i- Determine the volume for maximum profit.

ii- Maximum profit for this venture.

Name: _____ Registration #_____

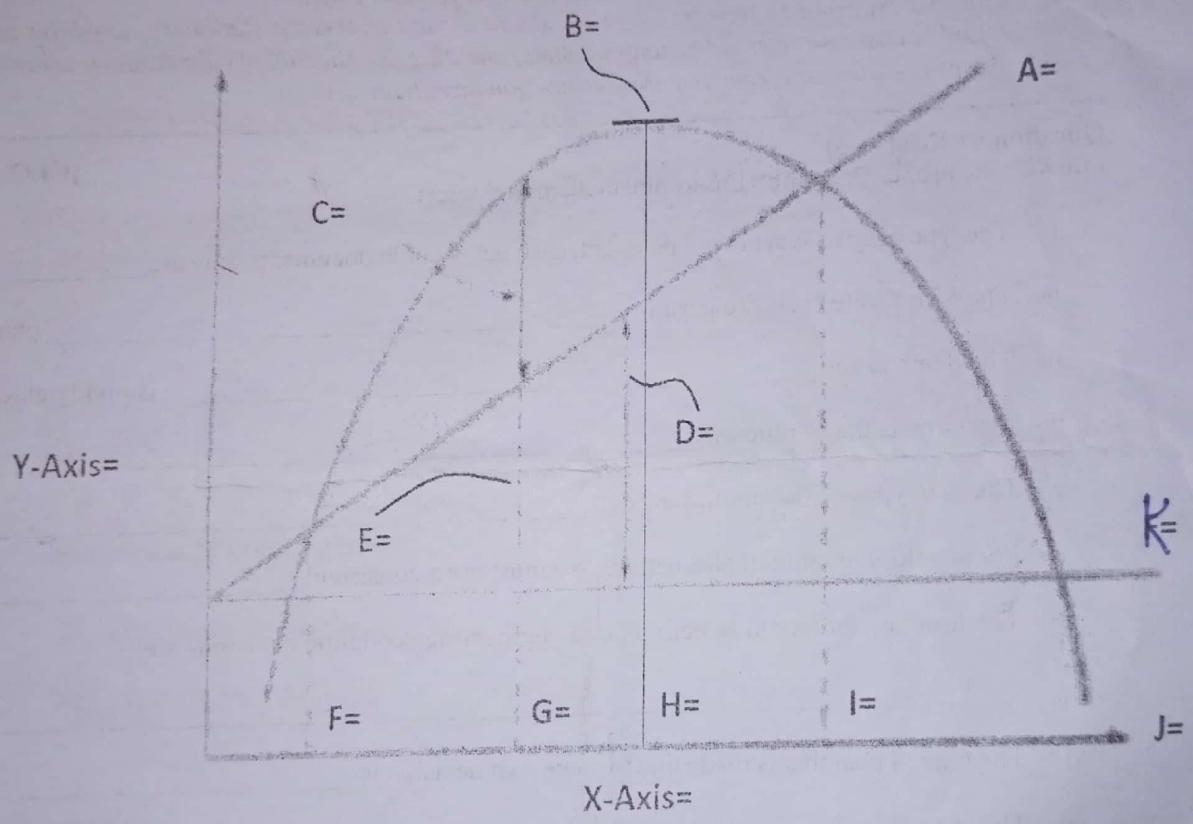
iii- Range of profitable demand.

iv- Maximum total revenue.

[CLO-1]

Question 03 [Marks 05]

Mark/Name the Economic Environment Terminologies and formulas for unknowns (A, B,….., J, X-axis and Y-axis) in the following Total Revenue Function.



Good Luck