## PRESIDENCY UNIVERSITY BENGALURU

## SCHOOL OF COMMERCE <br> MID TERM EXAMINATION - APR 2023

Semester : Semester II - 2022-23-BSE-2022
Date : 15-APR-2023
Course Code : BSE1003
Course Name : Sem II - BSE1003 - Advanced Mathematics for Economics
Program : B.Sc. Economics

Time : 2:00PM - 3:30PN
Max Marks : 50
Weightage : 25\%

## Instructions:

(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

## PART A

## ANSWER ALL THE FIVE QUESTIONS

$5 \mathrm{X} 2=10 \mathrm{M}$

1. Complete the equation, MPS $+\mathrm{MPC}=$ ?
a) 1
(CO1,CO2,CO3,CO4) [Knowledge]
b) 2
c) 3
d) 4
2. If $M P S=0.5$, then the value of multiplier is
a) 1
(CO2,CO3,CO4,CO1) [Knowledge]
b) 2
c) 3
d) 4
3. If indifference curve is right angle shape, then it is representing
a) Substitute Good
(CO4,CO3,CO2,CO1) [Knowledge]
b) Complementary Goods
c) Inferior Goods
d) Luxury Goods
4. The value of MPC lies betwee
a) 0 to 1
(CO1,CO2,CO3,CO4) [Knowledge]
b) 1 to -1
c) 0 to infinite
d) None of the above
5. What is the slope of indifference curve?
a) Marginal rate of transformation
(CO1,CO2,CO3,CO4) [Knowledge]
b) Marginal rate of substitution
c) Price ratio
d) None of the above

## PART B

## ANSWER ALL THE TWO QUESTIONS <br> $2 \times 10=20 \mathrm{M}$

6. Derive the government spending and government revenue multiplier using national income accounting identity.
(CO1,CO2,CO3,CO4) [Comprehension]
7. Complete the following table:

| Quantity (Q) | Price (P) | Total <br> Revenue | Average <br> Revenue | Marginal <br> Revenue | Price <br> Elasticity |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 0 | 10 |  |  |  |  |
| 1 | 9 |  |  |  |  |
| 2 | 8 |  |  |  |  |
| 3 | 7 |  |  |  |  |
| 4 | 6 |  |  |  |  |
| 5 | 5 |  |  |  |  |

(CO4,CO3,CO2,CO1) [Comprehension]

## PART C

## ANSWER THE ONE QUESTION

$1 \times 20=20 \mathrm{M}$
8. Distinguish between Walrasian and Marshallian System using labelled diagrams.

