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WORKSHEET 14

SCHOOL: BA SANGAM COLLEGE **YEAR: 12** **Name:____________**

SUBJECT: ECONOMICS

Strand	3. Macroeconomics
Sub Strand	3.1 Money and Banking- Quantity Theory of Money
Content Learning Outcome	3.1.1 Study the domestic market for money

LESSON NOTES

Quantity Theory of Money - The quantity theory of money is an identity that shows the relationship between nominal GDP, the stock of money and velocity of circulation.

It is also **known as the equation of exchange or Fisher Equation**.

Formula for Quantity theory of money : MV = PQ

M = money supply

V = velocity of circulation (the rate at which money changes hands at a given period of time).

P = price level

Q = physical value of goods and services (output therefore, PQ= nominal GDP).

Assumptions of equation

Effects of change in P, if V and Q are constant.

If P increases, when MV = PQ, then, M will also increase to balance the equation.

Calculation of velocity

Velocity shows the number of times average dollar spent on goods and services changes hand. The faster the dollar changes hand, the higher the velocity. Velocity is the ration of nominal GDP to the number of dollars in the money supply.

Example : If there was $4500 worth of transaction (output) in a year and MS was $900, calculate velocity.

Solution MV = PQ

V = PQ/M V = 4500/900 V = 5 times Changes in velocity

ACTIVITY

1.The equation of exchange is referred to as

A. Mathematical equation B. Fisher equation C. Keynesian equation

2. According to the Quantity Theory of Money, which of the following will result in an increase in price?

A. Money supply is fixed, velocity of circulation is fixed and quantity of outputs increases.
B. Money supply increases but velocity of circulation and quantity of outputs remain fixed.
C. Money supply increases, velocity of circulation is fixed, quantity of outputs increases faster than increase in the money supply.
D. Money supply is fixed, velocity of circulation increases and quantity of outputs increases faster than increase in the velocity of circulation.

3. According to the formula MV=PQ , if the money supply increases BY 20%,the most likely effect would be

A. The nominal GDP will increase by 20% B. The output will increase by 20%
C. The productivity will increase by 20% D. The real GDP will increase by 20% **(3 marks)**

4 .Read the resource given below and with your own knowledge answer questions (i) to (iii).

Assume that in 2019, the Lilyland Economy has a money supply of $4 billion, Velocity = 2, and Volume of transactions = $2 billion. Furthermore, their Central Bank has announced a doubled supply of money in the economy from the year 2020.

(i) Define the quantity theory of money.

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____ **(1 mark)**

(ii) Calculate:

i. Price level

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____-__ **(2 marks)**

ii. The lilyland's nominal GDP in the year 2019. (GDP= PxQ)

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____ **(2 marks)**

(iii) Explain the effect of the doubling of the money supply on price.

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____ **(2 marks)**