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GURUDAS COLLEGE

(GOVT. SPONSORED)

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Date: 07.12.2020

B.COM PART – II (HONS.)

INTERNAL EXAMINATION – 2020

SUBJECT – ECONOMICS II AND ADVANCED BUSINESS MATHEMATICS

PAPER – C21A

Full Marks: 50

Time : 1hr 30mins

Group A Economics II

1. Answer the following questions

5×5

(a) Why IS curve is downward sloping to the right?

Or, what direction IS curve shifts due to change in tax?

(b) Distinguish between the concepts of 'stock' and 'flow' in macroeconomic theory.

(c) What is value added method of measuring National Income?

Or, what is the expenditure method of measurement of National Income?

(d) Show that $MPC + MPS = 1$.

(e) What is the difference between GNP at factor cost and GNP at market price?

Or, how would you relate NNP at market prices to national income?

Group B Advanced Business Mathematics

1. Answer the following questions (any three)

5 x 3 = 15

(i) Find $\lim_{x \rightarrow 0} \frac{e^{ax} - e^{bx} + kx}{x}$

(ii) Find $\left| \begin{matrix} 1 & 4-x \\ 1 & 2 \end{matrix} \right| = 0$ then find the value of x .

(iii) If $y = 3e^{-x} + 4e^x$ then show that $\frac{d^2y}{dx^2} = y$.

(iv) Find $\int \frac{2x+3}{3x+2} dx$

(v) Draw the graph of the function $f(x) = |x|$.

2. Answer the following questions (**any two**)

5 x 2= 10

(i) If $3A+B = \begin{bmatrix} 2 & -3 \\ 0 & 1 \end{bmatrix}$ and $A-2B = \begin{bmatrix} -4 & -3 \\ 5 & 1 \end{bmatrix}$ then find the matrix $2A+B$.

10

(ii) $x = \frac{1+t}{1-t}$ and $y = \frac{2t}{1-t}$ then show that $\frac{d^2y}{dx^2} = 0$.

10

(iii) (a) If $f(x) = [x-1] - x$, then find $f(0)$ and $f(1)$.

(b) Find the domain of definition of the function $\log(x^2+3x-4)$

5+5=10