MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR
FIRST YEAR FIRST SEMESTER

SCHOOL OF BUSINESS & ECONOMICS
DOCTOR OF PHILOSOPHY BUSINESS ADMINISTRATION

COURSE CODE: DBA 9102

COURSE TITLE: ECONOMIC ANALYSIS

DATE: 27TH APRIL 2018   TIME: 11.00AM 2.00 PM

INSTRUCTIONS TO CANDIDATES

1. Answer **FOUR** questions

*This paper consists of **3** printed pages. Please turn over.*

QUESTION ONE

(a) Explain the following features of game theory models
      (i) rules   **(1mk)**
      (ii) feasible strategy set   **(1mk)**
      (iii) zero-sum game   **(1mk)**
      (iv) Dominated strategy   **(1mk)**

Two firms A and B are involved in a pricing policy game for a new product. Each firm knows that the rival firm will introduce a similar competing product. Because Firm A's product is expected to enter the market slightly sooner than Firm B's, Firm A announces its prices first. Firm A can choose one of the following three prices: Shs1.00. Shs1.35 or Shs1.65. Firm B will reveal its price later. Because it is second to market, its possible price points are two: Shs0.95 and Shs1.30. The payoffs represent profits as shown in the payoff matrix below.

	Firm B's Pricing Policy		
Firm A's Pricing Strategies		Shs0.95	Shs1.30
	Shs1.00	1,-1	-1,1
	Shs1.35	-1,1	1,-1
	Sha1.65	-2,5	-3,2

Identify firm A's and B's optimal pricing strategies.   **(4mks)**

(b)   Suppose that a firm is deciding whether or not to enter a market that is currently occupied by a monopolist M. If E stays out, then M gets a payoff of 20, and E gets a payoff of 0. If E enters, then E and M simultaneously choose which segment to occupy. There are two segments, a high segment and a low segment. If both firms occupy the low segment, they each get a payoff of -3. If both firms occupy the low segment, they each get a payoff of -5. If M occupies the high segment and E occupies the low segment, then M gets a payoff of 5 and E gets a payoff of -1. If M occupies the low segment and E

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occupies the high segment, then M gets a payoff of 3 and E gets a payoff of 4.

(i) Draw the game tree of this game. **(3mks)**

(ii) Find the sub-game perfect Nash equilibria (SPNE) of this game.

(4mks)

QUESTION TWO

(i) Explain the effect of an income increase for a normal and inferior.

(3mks)

(ii)   Explain the concept of liquidity trap. **(3mks)**

(iii)   Distinguish   between   'expenditure   changing'   and 'expenditureswitching' policies of correcting disequilibrium in the balance of payments. **(2mks)**

(iv)   Which of the two kinds of policies will you recommend for less developed economies facing balance-of-payment deficits? **(3mks)**

(v) Deficit spending as a fiscal measure of financing growth projects creates more problems than it solves. Discuss. **(4mks)**

QUESTION THREE

(a) Suppose structural model for two-sector economy is given as follows.

C=10+0.5Y

I=200-2000i

M_s=150

M_t=0.5Y

Where, C is consumption, I is investment, M_s is money supply, M_t is transactive demand for money.

Determine the equilibrium income and interest rate. **(5mks)**

(b)In the classical model, unemployment is due to mismatches between workers and firms. While the Keynesian theory posits that the real wage is slow to adjust to equilibrate the labor market. Explain any THREE reasons for real-wage rigidity. **(6mks)**

(C) A manufacturer's production is modeled by the Cobb-Douglas function $f(x; y) = 100x^{3/4} y^{1/4}$ where x represents the units of labor and y represents the units ofcapital. Each labor unit costs Shs200 and each capital unit costs Shs250. The total expenses for labor and capital cannot exceed Shs50,000. Find the maximum production level. **(4mks)**

QUESTION FOUR

(a)Explain output determination for an open economy with perfect capital mobility under the assumption of both flexible and fixed exchange rates in the following cases:
(i) An increase in the demand for exports. **(4mks)**
(ii)   A decrease in government expenditure **(4mks)**
(b)   Discuss the Solow model of growth. **(7mks)**

QUESTION FIVE

(a)A Cobb-Douglas utility function is given as $u(x_1^{0.5}x_2^{0.5})$.
Required:
(i) Marshallian demand functions. **(6mks)**
(ii) Interpret (i) above **(1mk)**
(ii) Indirect utility function. **(1mk)**
(iii)Expenditure function. **(2mks)**
(b)   A Leontief production function is given as $y = min\left\{\frac{x_1}{a_1}, \frac{x_2}{a_2}\right\}^{1/2}$. Solve for the following:
(i)   Interpret the production function. **(1mk)**
(ii) Conditional input demands. **(2mks)**
(iii) Cost function. **(2mks)**
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