COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

NMEC305: INDUSTRIAL ECONOMICS AND PUBLIC POLICY
END OF SEMSTER EXAMINATION NOVEMBER 2021
LECTURER: Dr T SAUNGWEME
TIME: 5 HOURS

INSTRUCTIONS TO CANDIDATES

1) ANSWER ANY ONE QUESTION

2) ALL QUESTIONS CARRY EQUAL MARKS

QUESTION 1

(a) Using the United Nations Standard International Trade Classification (SITC), classify the manufacturing sector of a country in Africa of your choice into its different levels. [15 marks]

(b) State and explain three approaches to define a market in industrial economics using actual examples from an African country of your choice. [15 marks]

(c) Assuming a manufacturing duopoly industry, firms A and B play the following game. First, Firm A must choose *IN* or *OUT*. If A chooses *OUT* the game ends and the payoffs are A gets 2, and B gets 0. If A chooses *IN* then B observes this and must then choose *IN* or *OUT*. If B chooses *OUT* the game ends, and the payoffs are B gets 2, and A gets 0. If A chooses *IN* and B chooses *IN* then they play the following simultaneous move game:

		Firm B	
		Left	Right
Firm A	Up	3; 1	0; -2
	Down	-1; 2	1; 3

(i) Draw the tree diagram that represents this game. [5 marks]
(ii) Distinguish between rules and strategies in game theory. [5 marks]

(d) Explain how cooperative and non-cooperative oligopolistic behaviour can be regarded as games of strategies or actions, using examples from a specific African country. [20 marks]

[TOTAL 60 MARKS]

QUESTION 2

(a) Discuss the role of public policy in steering industrial performance using the Structure-Conduct-Performance paradigm. [15 marks]
(b) Discuss the various industrialisation approaches and strategies that can be used to develop from the following:
(i) low income to middle income category; and [15 marks]
(ii) middle income to high income category. [15 marks]
(c) Explain appropriate trade policies that African countries could adopt to achieve economic development, using real world examples. [15 marks]

[TOTAL 60 MARKS]

QUESTION 3

(a) The table below shows the 2020 net output in $'000 of firms in five Zimbabwean industries.

Plastic	Beer	Furniture	Glass	Metals
30	3 450	60	7 750	77 300
140	12 450	1 190	7 700	1 940
18900	480	870	10 360	3 290
140	17 800	3 400	870	
350	960	9 000	4 000	
450		60		
100		120		
100				
235				

(i) Calculate the concentration ratios CR_4 and CR_1 for each industry and comment your results. [10 marks]

(ii) What are the drawbacks of relying on concentration ratios to deduce market structure? [10 marks]

(b) The demand and cost functions facing a duopoly industry are given as follows:

$$P = 80 - 0.25 (Q_A + Q_B)$$

$$C_A = 3Q_A ; C_B = 0.375Q^2_B$$

Where P = price, C_i = cost and Q_i = output and i = A, B.

How many units of output will firms A and B produce in order for each firm to maximise profits under the Cournot assumptions? [10 marks]

(c) Assume that the poultry sector in Zimbabwe has total sales of two million (2 000 000), and that there are four (4) firms in the industry, with absolute sizes of one million (1 000 000), seven hundred thousand (700 000), two hundred thousand (200 000), and one hundred thousand (100 000). Calculate the Hershaman-Herfindahl Index (HHI) and interpret your answer. [5 marks]

(d) A monopolist serves a market where Q = 36 – 3P is the aggregate demand function. C(Q) = 2Q represents the monopolist's cost function.

(i) How much profit can the monopolist generate with first-degree price discrimination if resale can be prevented? [5 marks]

(ii)What is the associated deadweight loss relative to the competitive level of output? [5 marks]

(e) Explain how the existence of asymmetric information helps to justify the theoretical possibility of limit pricing. [15 marks]

[TOTAL 60 MARKS]

END OF EXAMINATION