AFRICA UNIVERSITY

(A United Methodist-Related Institution)

"Investing in Africa's Future"

COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

NMEC 305: INDUSTRIAL ECONOMICS AND PUBLIC POLICY

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER 2022

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Answer **all** questions in section A, B, and C.
2. The marks allocated to **each** question are shown at the end of the question.
3. Candidates are allowed to use a non-programmable calculator.
4. Start **each** question on a new page in your answer booklet.

SECTION A

Questions 1 to 20 of the examination question paper are MULTIPLE-CHOICE questions. In each question select the most correct option. Each question carries 2 marks.

1. Which of the following is most likely an advantage of the Herfindahl-Hirschman Index relative to the N-firm concentration ratio? The Herfindahl-Hirschman Index:

A. is simpler to calculate,
B. considers barriers to entry.
C. is more sensitive to mergers.

2. A market characterized by low barriers to entry, good substitutes, limited pricing power, and marketing of product features is best characterized as:

A. oligopoly.
B. perfect competition,
C. monopolistic competition.

3. A firm is likely to operate in the short run as long as price is at least as great as:

A. marginal cost.
B. average total cost.
C. average variable cost.

4. Consider an agreement between France and Germany that will restrict wine production so that maximum economic profit can be realized. The possible outcomes of the agreement arc presented in the table below.

	Germany complies	Germany defaults
France complies	France gets $8 billion Germany gets $billion	France gets $2 billion Germany gets $10 billion
France defaults	France gets $10 billion Germany gets $2 billion	France gets $4 billion Germany gets $4 billion

Based on the concept of a Nash equilibrium, the most likely strategy followed by the two countries with respect to whether they comply with or default on the agreement will be:

A. both countries will default.
B. both countries will comply.
C. one country will default and the other will comply.

5. Consider a firm in an oligopoly market that believes the demand curve for its product is more elastic above a certain price than below this price. This belief fits most closely to which of the following models?

A. Cournot model.

B. Dominant firm model.
C. Kinked demand model.

6. In a purely competitive market, economic losses indicate that:

A. price is below average total costs.
B. collusion is occurring in the market place.
C. firms need to expand output to reduce costs.

7. A purely competitive firm will tend to expand its output so long as:

A. marginal revenue is positive.
B. marginal revenue is greater than price.
C. market price is greater than marginal cost.

8. In which market structure (s) can a firm's supply function be described as its marginal cost curve above its average variable cost curve?

A. Oligopoly or monopoly.
B. Perfect competition only.
C. Perfect competition or monopolistic competition.

9. An oligopolistic industry has:

A. few barriers to entry.
B. few economies of scale.
C. a great deal of interdependence among firms.

10. Suppose a market has 10 suppliers, each of them with 10 percent of the market. What are the concentration ratio and the HHI of the top four firms?

A. Concentration ratio 4 percent and HHI 40
B. Concentration ratio 40 percent and HHI 0.4
C. Concentration ratio 40 percent and HHI 0.04

11. An analyst gathered the following market share data for an industry comprised of five companies:

Company	Market Share (%)
Zeta	35
Yusef	25
Xenon	20
Waters	10
Vlastos	10

The industry's three-firm Herfindahl–Hirschmann Index is closest to:

A. 0.185.
B. 0.225.
C. 0.235.

12. Which of following is a key assumption of a perfectly competitive market?

A. Firms can influence market price.
B. Commodities have few sellers.
C. It is difficult for new sellers to enter the market.
D. None of the above.

13. If managers do not choose to maximise profit, but to pursue some other goal such as revenue maximisation or growth

A. they are more likely to become takeover targets of profit-maximising firms.
B. they are less likely to be replaced by stockholders.
C. they are less likely to be replaced by the board of directors.
D. they are more likely to have higher profit than if they had pursued that policy explicitly.

14. Owners and managers

A. must be the same people.
B. may be different people with different goals, and in the long run firms that do best are those in which the managers are allowed to pursue their own independent goals.
C. may be different people with different goals, but in the long run firms that do best are those in which the managers pursue the goals of the owners.
D. may be different people with different but exactly complementary goals.

15. Firms often use patent rights as a:

A. barrier to exit.
B. barrier to entry.
C. way to achieve perfect competition.
D. none of the above

16. An association of businesses that are jointly owned and operated by members for mutual benefit is a:

A. condominium.
B. corporation.
C. cooperative.
D. joint tenancy.

17. Collusion is less likely in a market when:

A. the product is homogeneous.

B. companies have similar market shares.
C. the cost structures of companies are similar.

18. An analyst gathers the following market share data for an industry:

Company	Sales (in millions of $)
ABC	300
Brown	250
Coral	200
Delta	150
Erie	100
All others	50

The industry's four-company concentration ratio is closest to:

A. 71 percent.
B. 86 percent.
C. 95 percent.

19. One disadvantage of the Herfindahl-Hirschman index is that the index:

A. is difficult to compute.
B. fails to reflect low barriers to entry.
C. fails to reflect the effect of mergers in the industry.

20. Which of the following is not an advantage of a partnership?

A. Perpetual life.
B. Easy to set up.
C. Profits only taxed once as owners` incomes.

(40 marks)

SECTION B

Answer True/False (T/F) (Each question carries 2 marks)

1. An oligopolistic industry has a great deal of interdependence among firms. One firm's pricing decisions or advertising activities will affect other firms.
2. Although the N-firm concentration ratio is simple to calculate, it can be relatively insensitive to mergers between companies with large market shares. Neither the HHI nor the N-firm concentration ratio consider barriers to entry.
3. These characteristics are associated with a market structure of monopolistic competition. Firms in perfect competition do not compete on product features. Oligopolistic markets have high barriers to entry.
4. If price is greater than average variable cost, a firm will continue to operate in the short run because it is covering at least some of its fixed costs.

5. When companies have similar market shares, competitive forces tend to outweigh the benefits of collusion.
6. The profit maximizing choice is the level of output where marginal revenue equals marginal cost.
7. The product produced in a perfectly competitive market cannot be differentiated by advertising or any other means.
8. Scale economies, patents, and strategic actions by incumbent firms can be regarded as a barrier to entry.
9. Bertrand model has the same results as the competitive model.
10. The prisoners' dilemma is a particular type of game in which negotiation and enforcement of binding contracts are not possible, and such games are known as noncooperative games.
11. The oligopoly model that predicts that oligopoly prices will tend to be very rigid is the kinked demand model.
12. A market structure in which there is one large firm that has a major share of the market and many smaller firms supplying the remainder of the market is called the dominant firm model.
13. The principal-agent problem is the problem of devising compensation rules that induce an agent to act in the best interest of the principal.
14. An oligopolistic is a market with few entry barriers and with many firms that sell differentiated products.
15. Monopolistically competitive firms have monopoly power because they have freedom of entry.
16. Pure competition is the market structure in which strategic considerations are most important.
17. Stackelberg equilibrium is a situation in which each firm selects its best action, given what its rivals are doing.
18. Both Cournot and Stackelberg models have the same results as the competitive model.
19. The Cournot model is a market structure in which there is one large firm that has a major share of the market and many smaller firms supplying the remainder of the market.
20. The Cournot model assumes that each firm in a market believes that at some price, demand is more elastic for a price increase than for a price decrease.

(40 marks)

SECTION C

QUESTION ONE

(a) Discuss the paradigms in industrial economics (10 marks).

(b) Outline the factors that favour the corporation over the proprietorship (10 marks).

END OF EXAMINATION