

**NATIONAL UNIVERSITY OF IRELAND
ST. ANGELA'S COLLEGE, SLIGO
SUMMER EXAMINATION 2013
FIRST UNIVERSITY EXAMINATION FOR THE DEGREE OF
BACHELOR OF APPLIED SCIENCE IN FOOD AND BUSINESS
MANAGEMENT**

MANAGEMENT PRINCIPLES 1.1.1

Time Allowed: 2 Hours

Lecturer: Mr. Michael Hosey
External Examiner: Dr. Christopher Strugnell
Head of Department: Ms. Amanda Mc Cloat

**Instructions: Answer Three questions.
 All questions carry equal marks.**

1. Describe the main functions of management.
2. Give a brief overview of how the Irish Business sector has developed since the foundation of the state.
3. Explain the terms "internal and external" business environments and its relevance to the management of a food business.
4. Management theory is evolving and continues to evolve over time. Discuss.
5. In order to achieve organisational goals and objectives the work of an organisation has to be divided among its members. Please explain how this is achieved.

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**Introduction to Marketing
1.1.2**

Time Allowed: **2 Hours**

Lecturer: Mr. Ronan McArt
External Examiner: Dr. Christopher Strugnell
Head of Department: Ms. Amanda Mc Cloat

Instructions: **All students must complete Section 1 – 30 Marks.** Circle the answer you have chosen on the examination script. You must return the examination script with your answer book.

Students must answer 10 Questions from Section 2 – 40 Marks. Provide brief answers for each Question.

Students Must Answer 1 Question in Section 3 – 30 Marks. Provide a detailed answer for chosen Question.

Section 1

All students must complete Section 1 (30 Marks). Circle the answer you have chosen on the examination script. You must return the examination script with your answer book.

1. Which of the following parts are included in the marketing mix?

- A) Product, place, promotion, and price
- B) Competition and customer satisfaction
- C) Buying, selling, transporting and storing
- D) Profit, distribution, and advertising

2. Which of the following is NOT included in the marketing management process used by the marketing manager to achieve its objectives?

- A) Planning marketing activities
- B) Raising funds to finance the marketing projects
- C) Controlling marketing plans
- D) Directing implementation of the marketing plans

3. The marketing concept applies to production firms, but not to service industries.

- A) True
- B) False

4. In addition to businesses, the marketing concept is also applicable to _____.

- A) Government agencies
- B) Religious groups
- C) Fine arts organizations
- D) All of the above

5. Market segmentation is a two-step process of: (1) naming broad product-markets and (2) segmenting these broad product-markets in order to select target markets and develop suitable marketing mixes.

- A) True
- B) False

6. A market segment is a (relatively) homogeneous group of customers who will respond to a marketing mix in a similar way.

- A) True
- B) False

7. Which of the following statements is NOT true about services?

- A) They are experienced, used or consumed
- B) They are often sold first, then consumed
- C) They are perishable
- D) They are tangible

8. Products that are bought quickly, as unplanned purchases are:

- A) Staples

- B) Impulse products
- C) Emergency products
- D) Specialty products

9. Which of the following is NOT one of the stages of the product life cycle?

- A) Market maturity
- B) Market growth
- C) Sales decline
- D) Product initiation

10. The _____ stage occurs when industry sales level off and competition gets tougher.

- A) Sales decline
- B) Market introduction
- C) Market maturity
- D) Market growth

11. Which one of the following is NOT a step of the new-product development process?

- A) Idea generation
- B) Idea evaluation
- C) Commercialization
- D) Removal from the market

12. _____ seek to satisfy customer needs at a profit with an integrated company effort.

- A) Product oriented firms
- B) Marketing oriented firms
- C) Service firms
- D) None of the above

13. _____ decisions have long-run effects and are usually harder to change than any other of these decisions.

- A) Product
- B) Price
- C) Place
- D) Promotion

**14. Corporate channel systems may develop by _____
- acquiring firms at different levels of channel activity.**

- A) Vertical integration
- B) Horizontal integration
- C) Complex integration
- D) Diffuse integration

15. Communicating information between sellers and potential buyers or others in the channel to influence attitudes and behaviour is called

- _____.
- A) Advertising
 - B) Promotion

- C) Publicity
- D) Marketing

16. Promotion activities other than advertising, publicity, and personal selling that stimulate interest, trial, or purchase by final customers or others in the channel is called _____.

- A) Pushing
- B) Pulling
- C) Sales promotion
- D) Integrated marketing communications

17. A _____ is a geographic area that is the responsibility of one salesperson or several working together.

- A) Sales target
- B) Sales region
- C) Sales territory
- D) Sales locale

18. The specific sales or profit objective a sales person is expected to achieve is the _____:

- A) Sales target
- B) Sales quota
- C) Commission base
- D) None of the above

19. An advertising strategy that tries to appeal to a global "mass market" is typically very successful.

- A) True
- B) False

20. A(n) _____ pricing policy tries to sell the top of a market - the top of the demand curve - at a high price before aiming at more price-sensitive customers.

- A) Skimming
- B) Penetration
- C) Optimal
- D) Best-practices

Section 2

Students must answer 10 Questions (40 Marks). Provide a brief answer for each question.

1. Define the term 'marketing'.
2. List the forces in the macro-environment.
3. Distinguish between qualitative and quantitative research.
4. Explain the term ethics.
5. What is market segmentation?
6. Define the term brand.
7. Distinguish between price skimming and price penetration.
8. List the main elements of the promotions mix.
9. Distinguish between a push and pull approach in channel management.
10. Distinguish between direct and indirect exporting.

Section 3

Students must answer one question (30 Marks). Provide a detailed answer for your chosen question.

Question 1

Explain the concepts of market segmentation, targeting and positioning and how they are used to support a firms marketing efforts. Please use examples to support your answer.

OR

Question 2

Discuss and explain the appropriate use of the following promotional mix tools:

- (a) Advertising
- (b) Sales promotion
- (c) Personal selling
- (d) Public relations.

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ECONOMICS 1.1.4

Time Allowed: 2 Hours

Lecturer: Dr. Brian O' Boyle
External Examiner: Dr. Christopher Strugnell
Head of Department: Ms. Amanda Mc Cloat

Instructions: **Answer Six Questions in Total. Answer Two questions from Section A, Two questions from Section B and Two questions from Section C.**

Total Marks: 200
Section A: 66.6 Marks
Section B: 66.6 Marks
Section C: 66.6 Marks

Instructions

You must answer **two** questions from section A.

Each question is worth 33.3 marks. Please number each question clearly and correctly.

SECTION A – Neoclassical Microeconomics

Question One (33.3 marks)

- (a) Neoclassical economics is best understood as a theory of choice. Outline the key neoclassical axioms making reference to both the assumptions about nature and the assumptions about human beings.

Question Two (33.3 marks)

(a) **5.3 marks**

Explain each of the following:

- (i) the Law of Supply
- (ii) Equilibrium

(b) **28 marks**

The monthly demand and supply curves for gym membership are given by the following equations:

$$Q_D = 180 - P$$

$$Q_S = -20 + P$$

(i) **6 marks**

Calculate the equilibrium price and quantity of gym membership using the equations above.

(ii) **6 marks**

Plot the demand and supply curves (using the equations above) and illustrate the equilibrium price and quantity. Ensure that your diagram is drawn to a proper scale.

(iii) **4 marks**

If the price increases to €120 per month will there be a shortage or a surplus in the market? Illustrate this in your diagram.

(iv) **12 marks**

In three separate diagrams illustrate and explain how each of the following events would impact on the market for gym membership:

- The government subsidizes the cost of gym membership for university students
- People expect the price of gym membership to rise in the future
- The price of sportswear increases dramatically.

Question 3 (33.3 marks)

(a) **5.3 marks**

Explain each of the following, outlining how they are calculated

- (i) Income elasticity of demand
- (ii) Price elasticity of supply

(b) **5 marks**

What value would you expect the coefficient of income elasticity to be for a necessary good? Explain your answer.

(c) **5 marks**

For each pair of goods listed below, which good would you expect to have the more elastic demand? Why?

- (i) Business flights to America / holidays to America
- (ii) Home heating oil over the next month / home heating oil over the next five years
- (iii) Food / hamburgers
- (iv) Insulin / aspirin

(d) **11 marks**

Jack currently consumes 5 units of good X and 20 units of good Y. The price of good X increases from €3 to €8 and the quantity demanded of good Y falls to 10. Calculate the cross price elasticity of demand.

(e) **7 marks**

Briefly outline the relationship between the advertising industry and elasticity measures.

Question 4 (33.3 marks)

(a) **6 marks**

What are the three conditions that characterize a monopolistic market?

(b) **3.3 marks**

Can a firm in a monopolistic market make super normal profits in the long run? Explain your answer.

(c) **13 marks**

The following table contains information about the costs of shoe manufacturing at a factory in Scotland. All data are per hour. Copy this table into your answer book.

Output	Total Revenue	Total Cost	Profit	Marginal Revenue	Marginal Cost
0		4,000			
1,000		8,000			
2,000		16,000			
3,000		28,000			
4,000		44,000			
5,000		64,000			

- (i) **10 marks**
Assuming shoes are sold for €12, complete the table.
 - (ii) **3 marks**
What is the optimal level of output at this factory? What criteria did you use to determine the optimal level of output?
- (d) **11 marks**
- (i) **5 marks**
What are the main characteristics of a perfectly competitive industry?
 - (ii) **6 marks**
Why does a perfectly competitive firm always operate at lowest average cost? Illustrate this on a diagram.

Section B: Macroeconomics

Instructions: Answer **Two** questions from this section. Each question is worth 33.3 marks. Please number each question clearly and correctly.

Question 1 (33.3 marks)

- (a) **18 Marks**
Explain the genesis of macroeconomics making reference to the Great Depression and the birth of Keynesian Economics.
- (b) **10 Marks**
Using a well-labelled diagram, draw the full circular flow model for an open economy.
- (c) **5.3 Marks**
List three methods for measuring the macroeconomy and explain under what conditions they are equivalent.

Question 2 (33.3 marks)

- (a) **4 Marks**
List the four factors of production.
- (b) **10 Marks**
Why is productivity so important to long-run living standards?
- (c) **9 Marks**
List three factors that determine productivity in a country. Discuss one of these factors.
- (d) **10.3 Marks**
Briefly discuss two ways by which the Government might encourage more economic growth.

Question 3 (33.3 marks)

- (a) **6 marks**
What is meant by investment? Explain how interest rates may affect the level of investment in an economy.
- (b) **12 marks**
Suppose a country decides to save a bigger share of the national income / output. Discuss the impacts that this would have on each of the following consumption, real interest rates, investment, capital stock, future income, output.
- (c) **15.3 marks**
You are given the following data about a hypothetical closed economy:
Consumption = €70bn; Direct taxes = €28bn; Government purchases = €20bn;
Transfer payments = €12bn; Investment = €20bn
- (i) **3.3 marks**
Calculate national income (GDP) in this closed economy.
- (ii) **3 marks**
Calculate personal disposable income.
- (iii) **3 marks**
Calculate the value of private savings.
- (iv) **3 marks**
Calculate the value of public savings.
- (v) **3 marks**
Calculate national savings.

Please show all calculations in your answer, including any savings equations.

Question 4 (33.3 marks)

- (a) **3.3 marks**
What is the principal function of money?
- (b) **6 marks**
Discuss how the quantity of money in the economy is measured.
- (c) **8 marks**
Explain carefully how the “money creation” process works in the commercial banking system.
- (d) **4 marks**
What factor determines the size of the money multiplier?
- (e) **4 marks**
Write out the quantity theory of money equation, as used in the classical theory of inflation. Explain the four terms in the equation.

(f) **8 marks**

Using the quantity theory of money equation, explain what will happen over the long run in an economy where the money supply is growing at 5% pa, and where real output is growing at 2.5% pa.

Assume a constant velocity of money. Show all calculations.

Section C -Marxist Economics

You must answer Two questions from section C.

Each question is worth 33.3 marks. Please number each question clearly and correctly.

Question One

(a) **(20 marks)**

Marx argued that understanding capitalism meant understanding the central relationship between capital and labour. Outline the basis of this relationship using the concepts of use-value, exchange-value and labour power.

(b) **(13.3 marks)**

Explain the Marxist critique of the ideas of freedom and rationality in neoclassical choice theory.

Question Two

(a) **(20 marks)**

Marxist economics argues that 'accumulation for accumulation sake' expresses the logic of capitalism. Outline the circuit undergone by capital in its self-expansion and explain why surplus value is the key to this process.

(b) **(13.3 marks)**

Explain the implications of the self-expansion of capital for the natural environment?

Question Three

(a) **(20 marks)**

Marx follows Smith and Ricardo in using the labour theory of value. Explain the essential features of this theory before contrasting it with the utility approach of the neoclassical framework.

(b) **(13.3 marks)**

Why do you think it was necessary for neoclassical economics to move from the labour theory of value to marginalism?

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**FOOD CHEMISTRY
1.2.2**

Time Allowed: **2 Hours**

Lecturer: Ms. Hilary Jordan
External Examiner: Dr. Christopher Strugnell
Head of Department: Ms. Amanda Mc Cloat

Instructions: **Answer three questions. All questions carry 20 marks.**

1. Describe, using diagrams as appropriate, the structure of a protein composed of more than one polypeptide chain. Explain using examples, how denaturing agents affect the structure and ultimately the function of proteins.
2. Give a detailed account of lipids under the following headings:
 - a) Structure of fatty acids
 - b) Melting points of lipids
 - c) Smoke points of lipids.
3. Draw the structure of glucose using Haworth projection. Compare and contrast the structure of amylose and amylopectin. Briefly discuss the effect of enzymes on starch in plants.
4. Discuss the functions, sources and requirements for vitamins and minerals.
5. Compare and contrast aerobic and anaerobic respiration in terms of energy yield. Include in your answer an outline of the steps involved in the glycolytic pathway.

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**NUTRITION, DIET AND HEALTH
1.2.3**

Time Allowed: **2 Hours**

Lecturers: Dr. Elaine Mooney and Ms. Roisin Lydon.
External Examiner: Dr. Christopher Strugnell
Head of Department: Ms. Amanda Mc Cloat

Instructions: **Answer THREE questions. All questions carry equal marks.**

1. Give an account of Protein in the human diet under the following headings:
 - a) Structure
 - b) Functions
 - c) Sources
 - d) Dietary Reference Values.

2. Discuss the role of diet in health and disease with specific reference to Coronary Heart Disease.

3. The Survey of Lifestyles Attitudes and Nutrition (SLAN) 2007 highlights inadequate intakes of Iron among a proportion of Irish women. Outline the functions, sources and deficiencies, making reference to factors which aid and hinder the absorption of Iron in the body.

4. Give an account of the nutritive value of meat. Outline its role in the Irish diet and discuss factors to be considered in the purchasing, storing and cooking of meat.

5. Outline the nutritional requirements and dietary needs of children, adolescents, and adults making reference to the new food pyramid.

6. Microwave ovens are very useful as they are energy efficient and save time. Discuss the advantages and disadvantages of using the microwave as a means of preparing food, the application of the working principle and the key points essential for successful use of the microwave.

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**INTRODUCTORY MICROBIOLOGY
1.2.6**

Time Allowed: **2 Hours**

Lecturer: Ms. Hilary Jordan
External Examiner: Dr. Christopher Strugnell
Head of Department: Ms. Amanda Mc Cloat

Instructions: **Answer three questions. All questions carry 20 marks.**

1. Describe, using diagrams, the structure of peptidoglycan. Outline the steps of the Gram stain procedure explaining how it enables differentiation between Gram positive and Gram negative organisms.
2. Give a detailed account of campylobacteriosis under the following headings:
 - a) Organism
 - b) Pathogenicity
 - c) Symptoms
 - d) Distribution.
3. Bacteria can be classified based on their requirements for temperature, oxygen and pH. Discuss each of these classifications. Explain, giving an example, how temperature can be manipulated in order to control growth of microorganisms in food.
4. Compare and contrast, with the aid of labelled diagrams, the structure of *Rhizopus* and *Penicillium*. Explain the process of asexual reproduction in *Rhizopus*.
5. Discuss the effect of limiting factors on bacterial cell growth. Describe how organisms from the genera *Bacillus* and *Clostridium* protect themselves against adverse environmental conditions.