CONFIDENTIAL

UNIVERSITI KUALA LUMPUR
BUSINESS SCHOOL

FINAL EXAMINATION
MARCH 2026 SEMESTER

COURSE CODE	:	EGB30903
COURSE NAME	:	PUBLIC FINANCE
PROGRAMME NAME	:	BACHELOR OF SCIENCE (HONOURS) IN ANALYTICAL ECONOMICS
DATE	:	25 JUNE 2026
TIME	:	9:00AM – 12:00PM
DURATION	:	3 HOURS

INSTRUCTIONS TO CANDIDATES

1. **Please CAREFULLY read the instructions given on this question paper.**
2. **This question paper has information printed on both sides of the paper.**
3. This examination comprises **TWO (2)** sections
4. You are required to answer **ALL** questions in **Section A** and choose **ONLY THREE (3)** questions in **Section B**.
5. Please write your answer in the answer booklet provided.
6. All questions must be answered in **English** (any other language is not allowed).
7. **This question paper must not be removed from the examination hall.**

THERE ARE SIX (6) PAGES OF QUESTIONS, INCLUDING THIS PAGE.

Section A (Total: 40 Marks)

Instruction: Answer **ALL** questions in this section. Write your answers clearly in the answer booklet provided. Where appropriate, support your answers with examples, and economic reasoning.

1. Define a government budget deficit and briefly explain its economic implications.

(5 marks)

2. Explain the concept of the free-rider problem and discuss why it leads to market failure in the provision of public goods.

(5 marks)

3. Distinguish between tax avoidance and tax evasion, highlighting their legal and economic implications.

(5 marks)

4. Explain how taxation can be used to reduce smoking consumption. Briefly analyse its effectiveness and any potential unintended consequences.

(5 marks)

5. Explain the differences between progressive, regressive, and proportional tax systems. Discuss how each system affects income distribution and briefly justify which system is most equitable.

(10 marks)

6. Evaluate the effectiveness of welfare programmes in Malaysia in improving societal well-being. In your answer, you should select **ONE (1)** type of welfare programme (e.g., cash transfers or subsidies) and briefly explain its objectives and the target group it is designed to assist. You should also analyse its impact on income inequality and poverty and critically evaluate its strengths and limitations in enhancing overall social welfare. Support your answer with relevant examples where appropriate.

(10 marks)

SECTION B (Total: 60 Marks)

Instruction: This section comprises **FOUR (4)** questions carrying 20 marks each. Answer **ANY THREE (3)** questions in the answer booklet provided.

Question 1

Suppose government expenditure (G) and tax revenue (T) are given by:

$$G = 200 + 0.2Y$$

$$T = 100 + 0.25Y$$

where Y represents national income.

(a) Determine the budget balance when national income Y=1,000, and state whether the government experiences a budget surplus or deficit.

(4 marks)

(b) Determine the level of national income at which the government budget is balanced, and briefly interpret its economic meaning.

(4 marks)

(c) Analyse the relationship between government spending, taxation, and the budget balance, and clearly explain the conditions under which a government experiences a budget surplus or a budget deficit.

(6 marks)

(d) Evaluate the economic implications of persistent budget deficits on public debt and macroeconomic stability.

(6 marks)

Question 2

Global warming is a major environmental issue caused by greenhouse gas emissions, which generate significant negative externalities. Governments around the world are considering different policy tools, such as carbon taxes and cap-and-trade systems, to reduce emissions and improve environmental outcomes.

Suppose that the marginal damage (MD) from emissions and the marginal abatement cost (MAC) are given as follows:

$$MD = -2Q + 200$$

$$MAC = Q + 20$$

where Q represents the level of emissions abatement.

(a) Determine the socially optimal level of emissions abatement and briefly interpret its economic meaning.

(4 marks)

(b) Determine the optimal carbon tax and explain how it helps to internalise the externality.

(4 marks)

(c) Analyse the differences between a carbon tax (price-based approach) and a cap-and-trade system (quantity-based approach) in achieving the socially optimal level of emissions abatement. In your answer, compare their effects on price certainty, quantity certainty, and policy effectiveness.

(6 marks)

(d) Evaluate the challenges of implementing global climate policies such as carbon taxes and cap-and-trade systems.

(6 marks)

Question 3

The government of Malaysia is considering the construction of a new public transportation system to reduce traffic congestion and improve economic productivity. The project requires an initial investment cost of RM5 million and is expected to generate annual social benefits of RM1.5 million for 5 years. Assume that the social discount rate is 10% per annum.

(a) Calculate the present value (PV) of the social benefits generated by the project and briefly interpret its economic meaning.

(4 marks)

(b) Determine the net present value (NPV) of the project and explain whether the government should undertake the project based on the cost-benefit criterion.

(4 marks)

(c) Analyse how changes in the discount rate may affect the outcome of the cost-benefit analysis and the government's decision-making process regarding the project.

(6 marks)

(d) Evaluate the limitations of cost-benefit analysis in assessing public sector projects, with reference to measurement issues and uncertainty.

(6 marks)

Question 4

A developing country is experiencing severe air pollution due to rapid industrialisation. Many firms emit pollutants into the air without paying for the social costs imposed on society. As a result, citizens face increasing health problems, reduced productivity, and higher healthcare costs.

The government is considering two policies:

1. Imposing a carbon tax on firms based on emissions
2. Setting a legal limit (cap) on the amount of pollution firms can emit

(a) Using economic reasoning, explain why the current market outcome is inefficient and how negative externalities contribute to market failure.

(4 marks)

(b) Analyse the difference between the market equilibrium level of pollution and the socially optimal level of pollution, and explain the welfare implications of over-pollution on society.

(4 marks)

(c) Analyse the effectiveness of a carbon tax and a pollution cap in reducing air pollution. In your answer, compare their effects on firm behaviour, pollution control, and economic efficiency.

(6 marks)

(d) Evaluate the challenges faced by governments in implementing environmental policies such as carbon taxes and pollution caps, with reference to enforcement, economic costs, and policy effectiveness.

(6 marks)

END OF EXAMINATION PAPER