PART A
INSTRUCTIONS: 1. THERE ARE FOUR (4) QUESTIONS IN THIS PART.
2. ANSWER ALL QUESTIONS.

Question 1
It is sometimes argued that managers of large, publicly owned firms make decisions to maximise their own welfare as opposed to that of stockholders. Would such behaviour create problems in using value maximisation as a basis for examining managerial decision making?

[TOTAL: 7 MARKS]

Question 2
“It is often impossible to obtain precise information about the pattern of future revenues, costs, and interest rates. Therefore, the process of economic optimisation is futile.”

Discuss this statement.

[TOTAL: 8 MARKS]

Question 3
a. Individual consumer demand declines for inferior goods as personal income increases because consumers replace them with more desirable alternatives. Is an inverse relation between demand and national income likely for such products?

[12 marks]

b. An estimated 80% increase in the retail price of cigarettes is necessary to cause a 30% drop in the number of cigarettes sold. Would such a price increase help or hurt tobacco industry profits? What would be the likely effect on industry profits if this price boost was simply caused by a RM1.50 per pack increase in cigarette excise taxes?

[13 marks]

[TOTAL: 25 MARKS]
Question 4

a. The president of a small firm has been complaining to his controller about rising labour and material costs. However, the controller notes that average costs have not increased during the past year. Is this possible?  

[8 marks]

b. Do operating strategies of average cost minimisation and profit maximisation always lead to identical levels of output?  

[7 marks]

[TOTAL: 15 MARKS]

PART B

INSTRUCTIONS:  1. THERE ARE FOUR (4) QUESTIONS IN THIS PART.
  2. ANSWER THREE (3) QUESTIONS ONLY.

Question 1

Dakwat Gembira supplies standard black printing ink to the nation’s offset printing market. Like its competitors, Dakwat Gembira must meet strict specifications. As a result, the ink supply industry can be regarded as perfectly competitive. Total and marginal cost relations per week for Dakwat Gembira are:

\[ TC = 4,000 + 5Q + 0.1Q^2 \]
\[ MC = \frac{\Delta TC}{\Delta Q} = 5 + 0.2Q \]

where Q is the number of barrels of ink produced.

a. Calculate Dakwat Gembira optimal output and profits if ink prices are stable at RM55 per barrel.  

[5 marks]

b. Calculate Dakwat Gembira optimal output and profits if ink prices rise to RM65 each.  

[5 marks]

c. If Dakwat Gembira is typical of firms in the industry, calculate the firm’s equilibrium output, price, and profit levels.  

[5 marks]

[TOTAL: 15 MARKS]
Question 2

West Wing, Bhd., enjoys an exclusive patent on a process to accurately detect water without expensive drilling or core samples. Total and marginal revenue relations for the water detection process are:

\[ TR = 280Q - 0.005Q^2 \]
\[ MR = \frac{\Delta TR}{\Delta Q} = 280 - 0.01Q \]

Marginal costs for the process are stable at RM100 per test. All other costs have been fully amortised.

a. As a monopoly, calculate West Wing’s output, price, and profits at the profit maximising activity level.

[8 marks]

b. What price and profit levels would prevail following expiration of copyright protection based on the assumption that perfectly competitive pricing would result?

[7 marks]

[TOTAL: 15 MARKS]

Question 3

Ah Huat is manager of a Quick Copy franchise in Sabak Bernam. Ah Huat projects that by reducing copy charges from 5sen to 4sen each, Quick Copy’s RM600-per-week profit contribution will increase by one-third.

a. If average variable costs are 2sen per copy, calculate Quick Copy’s projected increase in volume.

[8 marks]

b. What is Ah Huat’s estimate of the arc price elasticity of demand for copies?

[7 marks]

[TOTAL: 15 MARKS]
Question 4

Assume that Jackfruit and Mangoesteen Computer have an inventory of personal computers that they would like to sell before a new generation of faster, cheaper machines is introduced. The question facing each competitor is whether or not they should widely advertise a “close out” sale on these discontinued items, or instead let excess inventory work itself off over the next few months. If both aggressively promote their products with a nationwide advertising campaign, each will earn profits of RM5 million. If one advertises while the other does not, the firm that advertises will earn RM20 million, while the one that does not advertise will earn RM2 million. If neither advertises, both will earn RM10 million. Assume this is a one-shot game, and both firms seek to maximise profits.

<table>
<thead>
<tr>
<th>Promotion Strategy</th>
<th>Mangoesteen</th>
<th>Jackfruit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertise</td>
<td>RM5, RM5</td>
<td>RM20, RM2</td>
</tr>
<tr>
<td>Not Advertised</td>
<td>RM2, RM20</td>
<td>RM10, RM10</td>
</tr>
</tbody>
</table>

a. What is the dominant strategy for each firm? Are these also secure strategies?  
   [5 marks]

b. What is the Nash equilibrium?  
   [5 marks]

c. Would collusion work in this case?  
   [5 marks]

[TOTAL: 15 MARKS]